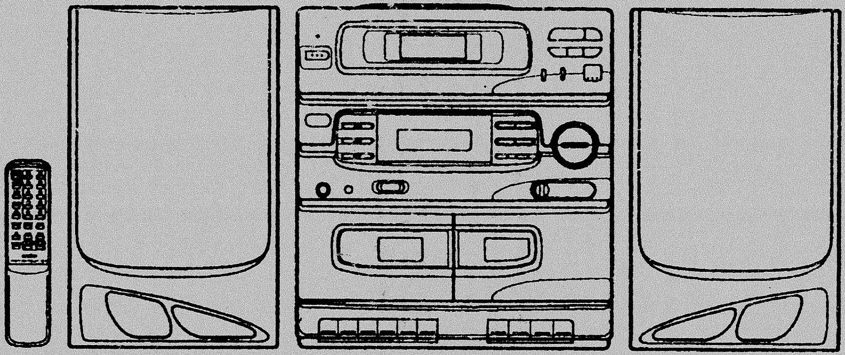
SANYO

FILE NO.

Service Manual

Mini Component System

DC-D9 (UK) (XE)



Specifications

PRODUCT CODE No.
129 472 02 (UK)
129 472 03 (XE)

Note: The below mentioned specifications are mainly based on the IHF measurements standard.
They can therefore not directly be compared with specifications based on the DIN standard or other standards.

TUNER SECTION

Reception frequency .	FM : 87.5 - 108.0 MHz MW : 522 - 1,611 LW : 144 - 288 kl

CASSETTE DECK SECTION

Track system	4 track, 2-channel stereo
Frequency response ..	80 Hz - 13,500 Hz
Signal to noise ratio ..	50 dB
Wow & Flutter	0.15 % (WRMS)
Tape speed	4.75 cm/sec
Fast forward and rewind time	Approx. 110 sec. (C-60)

CD PLAYER SECTION

Type	Changer, 3-disc
Channels	2-channel stereo
Sampling frequency ..	44.1 kHz
Pick-up	Optical 3-beam semiconductor laser
Laser output	0.6 mW (Continuous wave max.)
Wave length	790 nm
Frequency response ..	20 Hz - 20,000 Hz
Wow & Flutter	Below measurable limits

This service manual consists of "DC-D9U"(main unit), "RB-D9" (remote control) & "SX-D9" (speaker system)

AMPLIFIER SECTION

Output power	12.5 W x 2 (at 4 ohms, 10% distortion)
Inputs	VIDEO : 400 mV /50k ohms (XE) VIDEO/PHONO : 400 mV (50k ohms) / 2.5 mV (50 k ohms) (UK)
Outputs	SPEAKER : 4 ohms PHONES : 8 - 32 ohms
Power requirements ..	AC : 230 V, 50 Hz
Power consumption ..	45 W
Dimensions (WxHxD) .	Approx. 270 x 300 x 290 mm
Weight	Approx. 5 kg

SPEAKER SYSTEMS

Type	2 way bass reflex
Unit used	Woofer: 12 cm cone type Tweeter : piezoelectric
Maximum power-handling capacity	25 W (peak)
Nominal impedance ..	4 ohms
Dimensions (WxHxD) .	Approx. 180 x 300 x 194 mm
Weight	Approx. 1.6 kg (per speaker)

Specifications subject to change without notice.

REFERENCE No. SM580605

Notice

☐ CORRECTION
☐ PRODUCTION CHANGE
☑ SERVICE FLASH
☐ ADD INFORMATION
☐
☐

FILE NO.

Please add this notice to the Service Manual listed below.

Category : Mini Component System
Date : Nov. 1995
Model : DC-D9
Destination : UK/XE
Reference No. : SM580605
Issue Number : 1

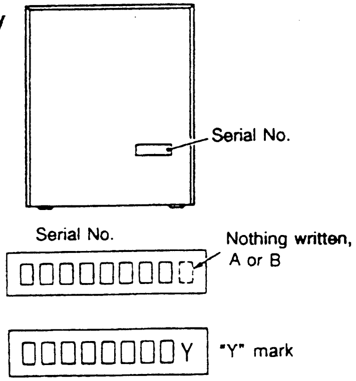
The reason of change.
A : Misprint
B : Quality Reliabilities
C : Standardization
D : Design
E :
F :
G :

Page & Section	Ref. No.		Part No.	Description	Q'ty	Interchange-ability	Reason
P26 PARTS LIST	503	Old	614 266 1840	HOLDER,CHUCK BRACKET	1	(ELIMINATE)	B
	503	New	614 279 6016	HOLDER,CHUCK BRACKET	1	(ADDITIONAL)	
P26 PARTS LIST	572	Old	614 266 8153	STOPPER,DISC STOPPER	1	(ELIMINATE)	B
	572	New	614 279 0595	STOPPER,DISC STOPPER	1	(ADDITIONAL)	
P20 PARTS LIST	R1350	Old	⚠402 045 0302	RESISTOR 4.7 J- 1W	1	(ELIMINATE)	B
	R1350	New	⚠402 048 1603	RESISTOR 10 J- 1W	1	(ADDITIONAL)	

Prod. Cord : 129 472 02 (UK)
129 472 03 (XE)

- When the CD is played, if "ME " appears in the **FL display** and the mechanism does not operate as normal, check the CD changer following the procedure described below.

1. Check the serial number (rear cabinet). If there is an "**A**" or "**B**" or **nothing written** in after the eight-digit serial number, carry on the work according to this notice.
2. Fill in a "**Y**" mark after the serial number after the work is completed.

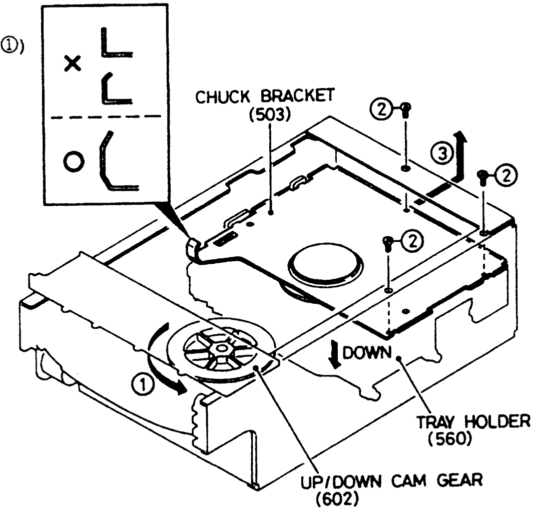


REMOVAL AND INSTALLATION

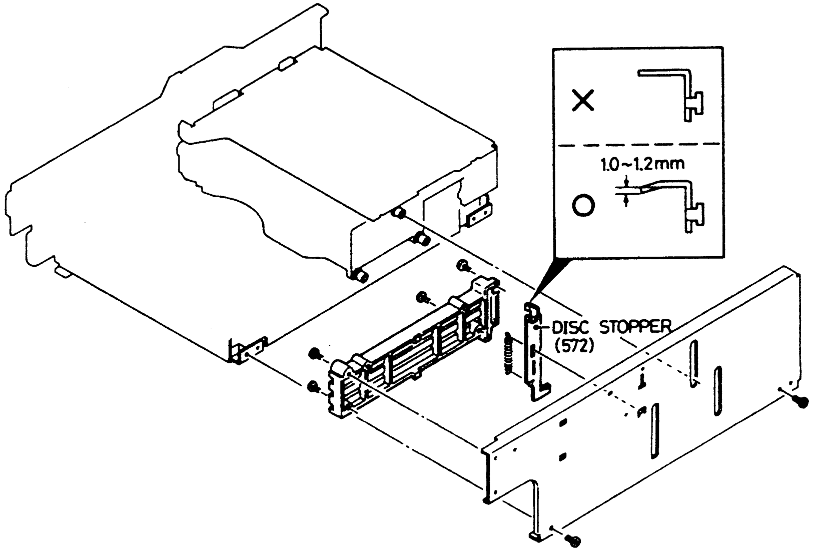
1. CD CHANGER MECHANISM

(a) CHUCK BRACKET (503)

(1) Rotate the UP/DOWN CAM GEAR (602). (①)
(2) Remove the 3 CD changer mechanism mounting screws. (②)
(3) Remove the chuck bracket. (③)



(b) DISC STOPPER (572)



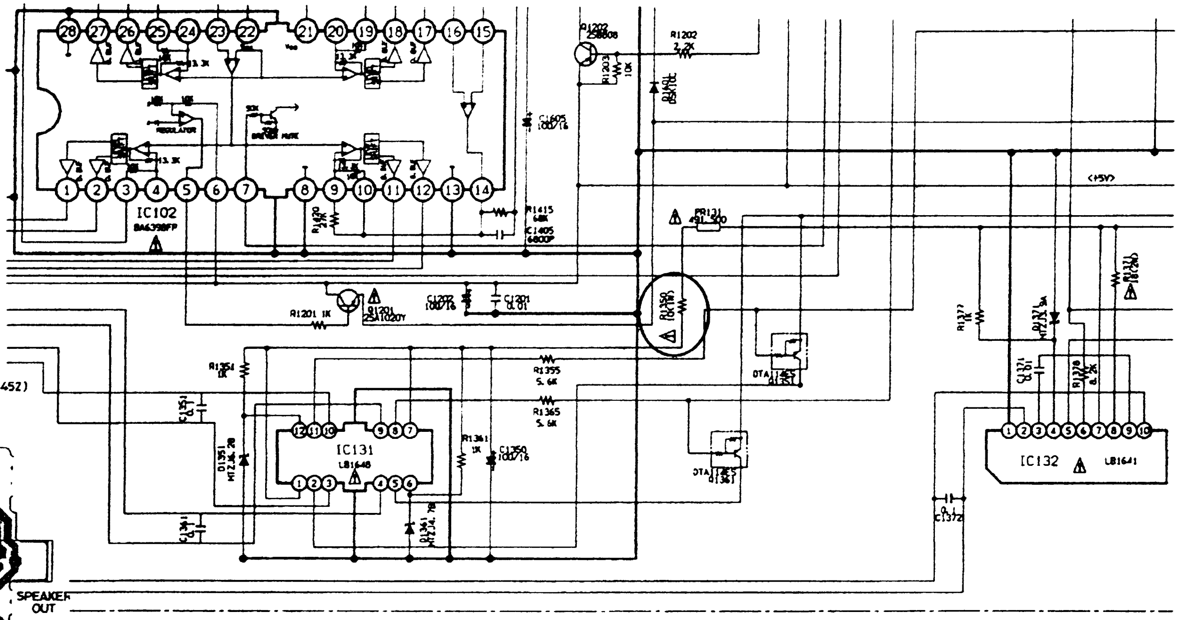
2. CD SECTION

a. RESISTOR, R1350

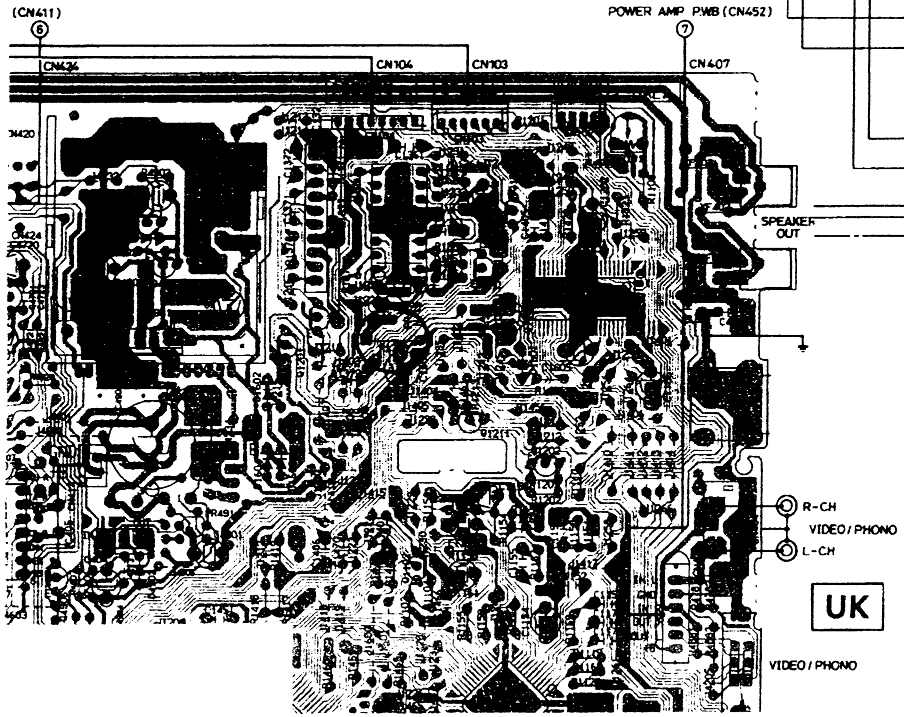
Ref. No.	Part No.	Description
R1350	⚠402 048 1603	RESISTOR 10 J- 1W

R1350

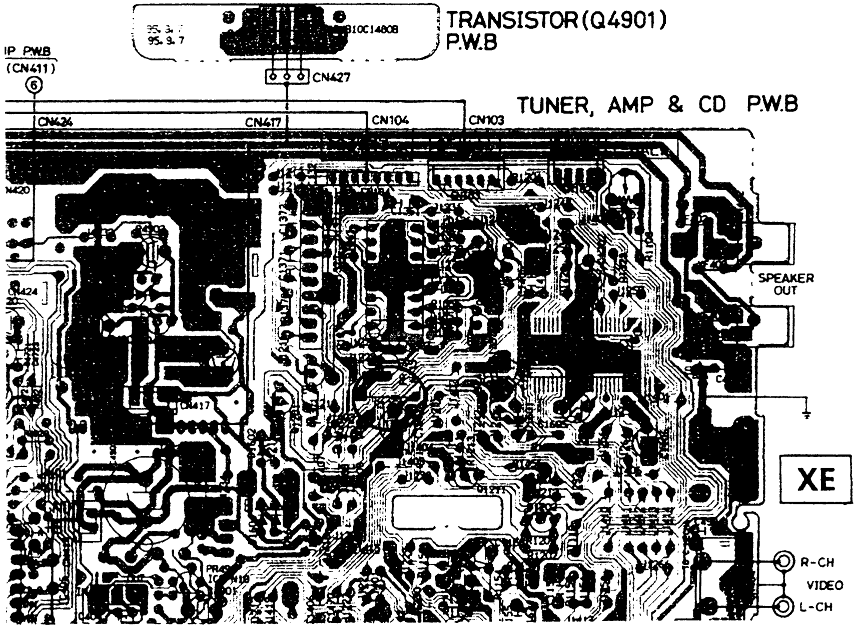
4.7 ohm ± 5% 1W → 10 ohm ± 5% 1W



IC102
BA6398FP
IC131
LB1648
IC132
LB1641
R1350
Q1202
R1202 2.2K
R1201 1K
Q1201
R1355 5.6K
R1365 5.6K
R1351
R1361
C1350
R1415 68K
C1405 6800P
PR1371
<+5V>
C1372



(CN411)
⑥
POWER AMP P.W.B (CN452)
⑦
CN424
CN104
CN103
CN407
CN420
SPEAKER OUT
R-CH
VIDEO / PHONO
L-CH
VIDEO / PHONO
UK

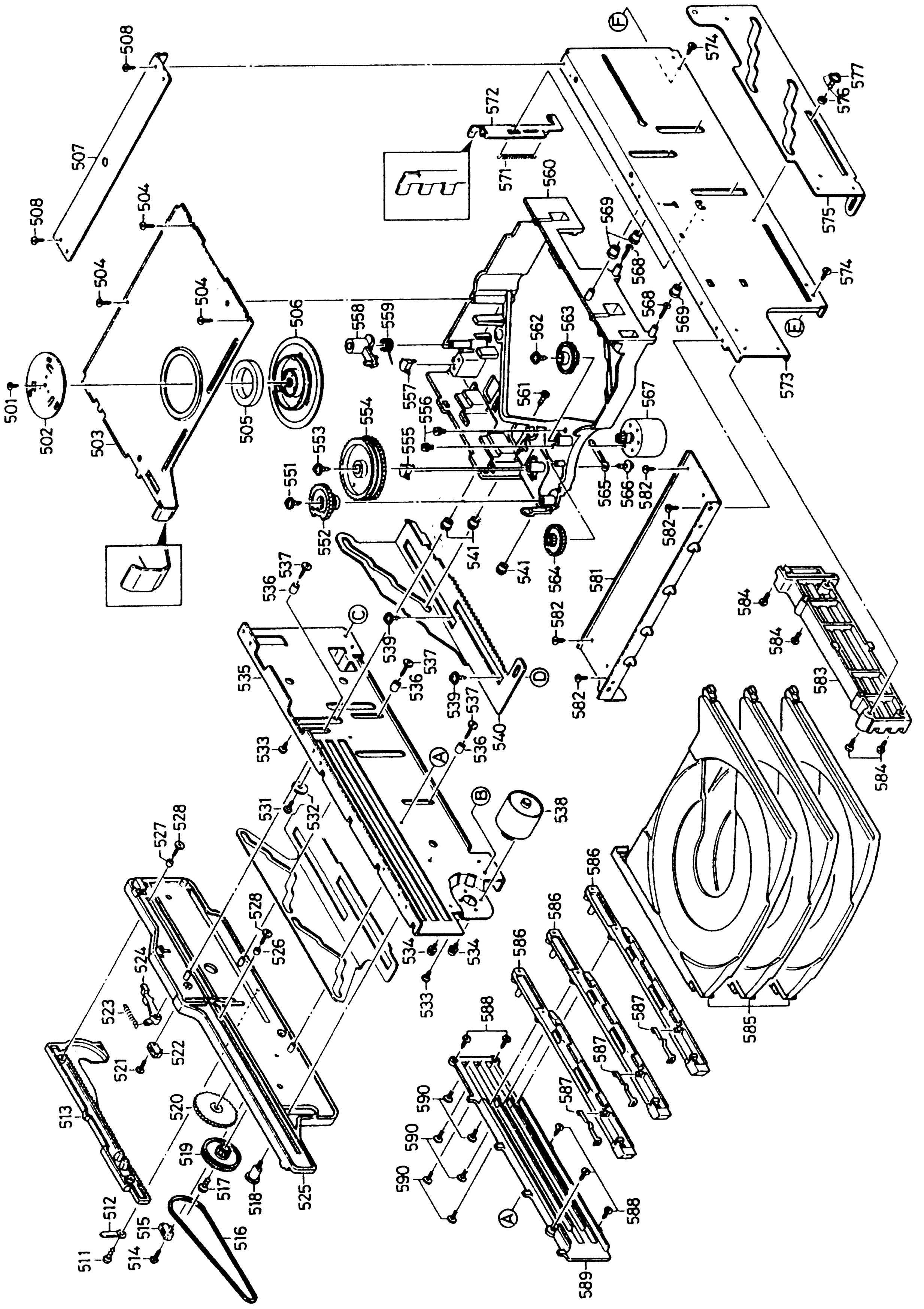


TRANSISTOR (Q4901) P.W.B
CN427
IP P.W.B (CN411)
⑥
CN424
CN417
CN104
CN103
TUNER, AMP & CD P.W.B
CN420
SPEAKER OUT
R-CH
VIDEO
L-CH
XE

3. NOTES

- Fill in a "Y" mark after the serial number following completion of the work described in this notice.

EXPLODED VIEW (CD CHANGER MECHANISM) (REVISED)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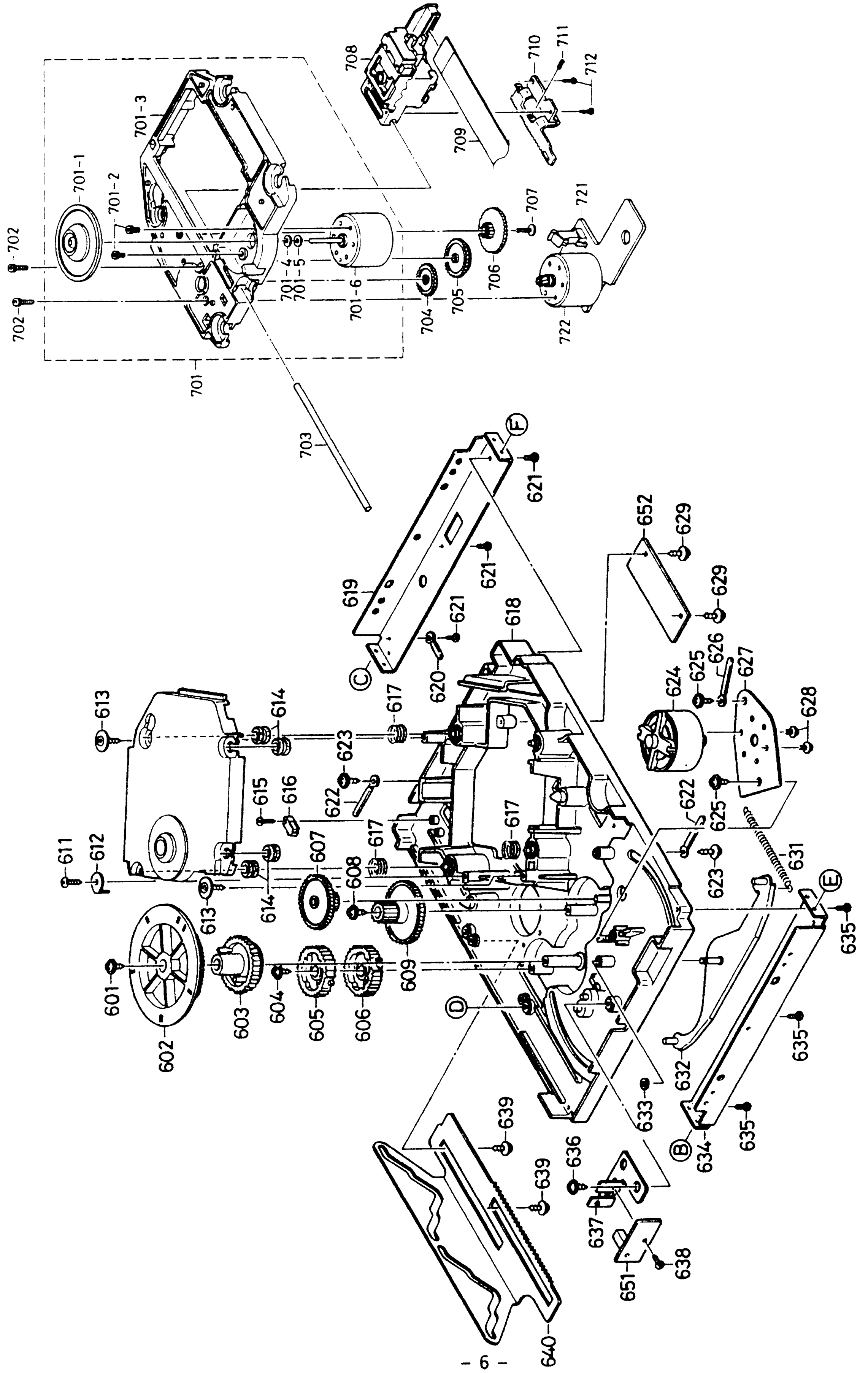
PARTS LIST (REVISED)

CD CHANGER MECHANISM (PM-CDCH3/SH)

Ref. No.	Part No.	Description
501	411 022 7500	SCR S-TPG PAN 2X4MM, CHUCK PULLEY FIX
502	614 266 8061	HOLDER,CHUCK PLATE PULLEY
503	614 279 6016	HOLDER,CHUCK BRACKET
504	411 022 7807	SCR S-TPG PAN 2X6MM, CHUCK BRACKET FIX
505	645 009 9809	MAGNET CHUCK,CHUCKING
506	614 272 1674	ASSY,PULLEY,CHUCK
507	614 266 1918	JOINT,B-TOP ENCOURAGER
508	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
511	411 021 0809	SCR S-TPG BIN 2X6MM,LUG FIX
512	614 129 9341	LUG,OPEN/CLOSE SWITCH LOAD
513	614 266 1833	GEAR,OPEN/CLOSE RACK
514	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
515	645 010 6491	SWITCH,LEVER,OPEN END
516	614 268 5594	BELT,SQUARE,OPEN/CLOSE
517	411 021 2704	SCR S-TPG BIN 2.6X6MM, PULLEY FIX
518	412 004 5705	SPECIAL SCREW,GEAR BLOCK FIX
519	614 266 1987	PULLEY,OPEN/CLOSE IDLER PULLEY
520	614 266 1826	GEAR,OPEN/CLODE IDLER
521	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
522	645 010 6491	SWITCH,LEVER,CLOSE END
523	614 268 0179	SPRING,TENSION,LEVER PULL
524	614 266 2878	LEVER,OPEN/CLOSE LOCK LEVER
525	614 266 1970	MOUNTING,GEAR BLOCK BRACKET
526	614 273 5992	PIPE,GEAR RACK GUIDE(F)
527	614 270 2222	PIPE,GEAR RACK GUIDE(R)
528	412 047 3904	SPECIAL SCREW,2X8MM, GEAR RACK FIX
531	411 022 7807	SCR S-TPG PAN 2X6MM, TRAY HOLDER
532	411 091 9702	WASHER V 2X8X0.5MM
533	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
534	411 044 7007	SCR PAN+SW 2X3MM, OPEN/CLOSE MOTOR FIX
535	614 266 1949	MOUNTING,LEFT SIDE BRACKET
536	614 268 0476	PIPE,OPEN/CLOSE BRAKET GUIDE
537	412 047 3904	SPECIAL SCREW,2X8MM, MOUNTING FIX
538	645 009 1186	ASSY,MOTOR,OPEN/COLSE
539	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,SLIDE FIX
540	614 266 1994	SLIDE,TRAY HOLDER
541	614 277 9460	PIPE,TRAY HOLDER GUIDE
551	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
552	614 266 1819	GEAR,LOAD/UNLOAD DRIVE
553	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
554	614 266 1802	GEAR,LOAD/UNLOAD CAM
555	614 214 9379	SWITCH,UNLOAD END
556	411 044 7205	SCR PAN+SW 2X4MM, LOAD/UNLOAD MTR FIX
557	614 214 9379	SWITCH,LOAD END
558	614 266 1932	LEVER,LOCK
559	614 268 0186	SPRING,WIRE, LOAD/UN-LOAD LOCK LEVER
560	614 266 1963	MOUNTING,TRAY HOLDER
561	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
562	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
563	614 266 8030	GEAR,LOAD/UNLOAD IDLER1
564	614 266 1796	GEAR,LOAD/UNLOAD IDLER2
565	614 129 9136	LUG,LEAD MTG.
566	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
567	645 009 1193	ASSY,MOTOR,LOAD/UNLOAD
568	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
569	614 268 0469	PIPE,TRAY HOLDER GUIDE
571	614 268 0162	SPRING,TENSION,STOPPER PULL
572	614 279 0595	STOPPER,DISC STOPPER
573	614 266 1956	MOUNTING,RIGHT SIDE BRAKET
574	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
575	614 268 2906	ASSY,SLIDE,RIGHT
576	614 270 2239	PIPE,RIGHT SLIDE GUIDE
577	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, RIGHT SLIDE FIX
581	614 266 1901	JOINT,F-TOP ENCOURAGER
582	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
583	614 266 1864	HOLDER,RIGHT,TRAY GUIDE
584	411 028 3100	SCR S-TPG PAN 2X6MM, HOLDER FIX
585	614 266 2038	TRAY
586	614 266 1871	HOLDER,TRAY GUIDE
587	614 266 8924	SPRING,PLATE,TRAY HOLD
588	411 028 2905	SCR S-TPG PAN 2X4MM, HOLDER FIX
589	614 266 1857	HOLDER,LEFT,TRAY GUIDE
590	412 047 3904	SPECIAL SCREW 2X8MM, HOLDER FIX
601	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
602	614 266 1758	GEAR,UP/DOWN CAM (1)
603	614 266 1765	GEAR,UP/DOWN CAM (2)
604	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
605	614 266 1772	GEAR,UP/DOWN DRIVE (1)
606	614 266 1789	GEAR,UP/DOWN DRIVE (2)
607	614 266 1734	GEAR,UP/DOWN IDLER 1
608	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
609	614 266 1741	GEAR,UP/DOWN IDLER 2
611	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,HOLDER FIX
612	614 267 6998	HOLDER,BASE MECHANISM FIX
613	614 279 1202	SPECIAL SCREW,BLACK, BASE MECHANISM FIX
614	614 237 7031	CUSHION,RUBBER,FLOATING
615	411 021 1202	SCR S-TPG BIN 2X8MM, PLAY SW FIX
616	645 010 6491	SWITCH,LEVER,PLAY
617	614 247 4907	SPRING,COMP,FLOATING
618	614 266 1727	CHASSIS,BOTTOM CHASSIS
619	614 266 1888	JOINT,BOTTOM BACK
620	614 129 9341	LUG,OPEN/CLOSE SWITCH LEAD
621	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
622	614 129 9136	LUG,LOAD/UN-LOAD SWITCH LEAD
623	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
624	614 268 2890	ASSY,MOTOR,UP/DOWN

EXPLODED VIEW (CD CHANGER & BASE MECHANISM) (REVISED)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PARTS LIST (REVISED)

Ref. No.	Part No.	Description
625	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, BRACKET MOTOR FIX
626	614 129 9136	LUG,SENSOR LEAD
627	614 266 8054	HOLDER,BRACKET MOTOR
628	411 102 6300	SCR PAN-FLG 2.6X2.8MM, UP/DOUN MOTOR FIX
629	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,CHUKEI PWB FIX
631	614 268 0155	SPRING,TENSION, SYNCRO LEVER PULL
632	614 268 2883	ASSY,LEVER,SYNCRO
633	614 127 1576	WASHER,LEVER ASSY FIX
634	614 272 6600	JOINT,BOTTOM FRONT
635	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
636	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SENSOR BK FIX
637	614 266 9907	HOLDER,SENSOR BRACKET
638	411 028 2905	SCR S-TPG PAN 2X4MM, SENSOR PWB FIX
639	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SLIDE FIX
640	614 266 2007	SLIDE,TRAY SLISE
	614 269 6026	ASSY,WIRE,5P,SENSOR, UP/DOWN MOTOR
	614 269 6033	ASSY,WIRE,6P, LOAD/UNLOAD/PLAY SWITCH
	614 269 6040	ASSY,WIRE,4P, LOAD/UNLOAD,UP/DOWN MOTOR
	614 269 6057	ASSY,WIRE,4P, OPEN/CLOSE SWITCH

CD SENSOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
651	614 270 1928	ASSY,PWB,SENSOR
D191	407 177 6109	PHOTO COUPLE GP1A53E

CD CONNECTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
652	614 267 6646	ASSY,PWB CD,CONNECTOR, CHANGER
CN191	645 006 0915	PLUG,4P,LOAD/UNLOAD SWITCH
CN192	645 004 2706	PLUG,4P,LOAD/UNLOAD,UP/DOWN MOTOR
CN193	645 006 0939	PLUG,6P,OPEN/CLOSE/PLAY SWITCH
CN194	645 006 0922	PLUG,5P,SENSOR,UP/DOWN MOTOR
CN195	645 006 0915	PLUG,4P,CD PWB
CN196	645 006 0953	PLUG,8P,CD PWB

CD BASE MECHANISM (PM-CDBM94D2SH)

Ref. No.	Part No.	Description
701	614 270 2031	ASSY,CHASSIS,BASE MECHANISM
701-1	614 268 3354	ASSY,TURNTABLE,SPINDLE
701-2	411 044 7502	SCR PAN+SW 2X5MM, SPINDLE MOTOR FIX
701-3	614 262 2582	CHASSIS,BASE MECHANISM
701-4	412 032 0208	SPECIAL WASHER,1.9X5X0.3MM
701-5	412 014 5603	SPECIAL WASHER,TURNTABLE STOPPER
701-6	645 007 7821	MOTOR,CD-SPINDLE DC 0.2W, SPINDLE MOTOR
702	411 044 8004	SCR PAN+SW 2X8MM, SLED MOTOR FIX
703	614 237 7024	SHAFT,PICK-UP RAIL
704	614 237 7093	GEAR,SLED RETARD GEAR 1
705	614 237 7109	GEAR,SLED RETARD GEAR 2
706	614 237 7116	GEAR,SLED
707	412 047 3904	SPECIAL SCREW 2X8MM, SLED GEAR FIX
708	645 006 7983	PICKUP,LASER,SF-P100
709	645 009 9960	FLEXIBLE FLAT CABLE,13P, PICK-UP
710	614 262 2599	GEAR,RACK PICK-UP RACK GEAR
711	614 238 6934	SPRING,COMP,PICK-UP RACK GEAR
712	411 152 4301	SCR S-TPG PAN PCS 1.7X6MM, PICK RACK GEAR FIX
722	645 007 7814	ASSY,MOTOR CD-SLED
	614 270 2543	ASSY,CONNECTOR-S,6P, BASE MECHANISM

BASE MECHANISM P.W.BOARD ASSY

Ref. No.	Part No.	Description
721	614 254 0664	ASSY,PWB,MOTOR & LIMIT SWITCH
CN001	645 006 0939	PLUG,6P
S001	614 231 4005	SWITCH,LEAF,LIMIT SWITCH

SANYO

Nov./'95/3000 KM Printed in Japan.

SANYO Electric Co., Ltd.
Osaka, Japan

Notice

SANYO

FILE NO.

☐ CORRECTION ☐ PRODUCTION CHANGE

☑ SERVICE FLASH ☐ ADD INFORMATION

☐ ☐

Please add this notice to the Service Manual listed below.

Category : Mini Component System

Date : Feb. 1996

Model : **DC-D9**

Effective from : Serial No. from U5XX0001 to U5606530

Destination : UK

Reference No. : SM580605

Issue Number : 2

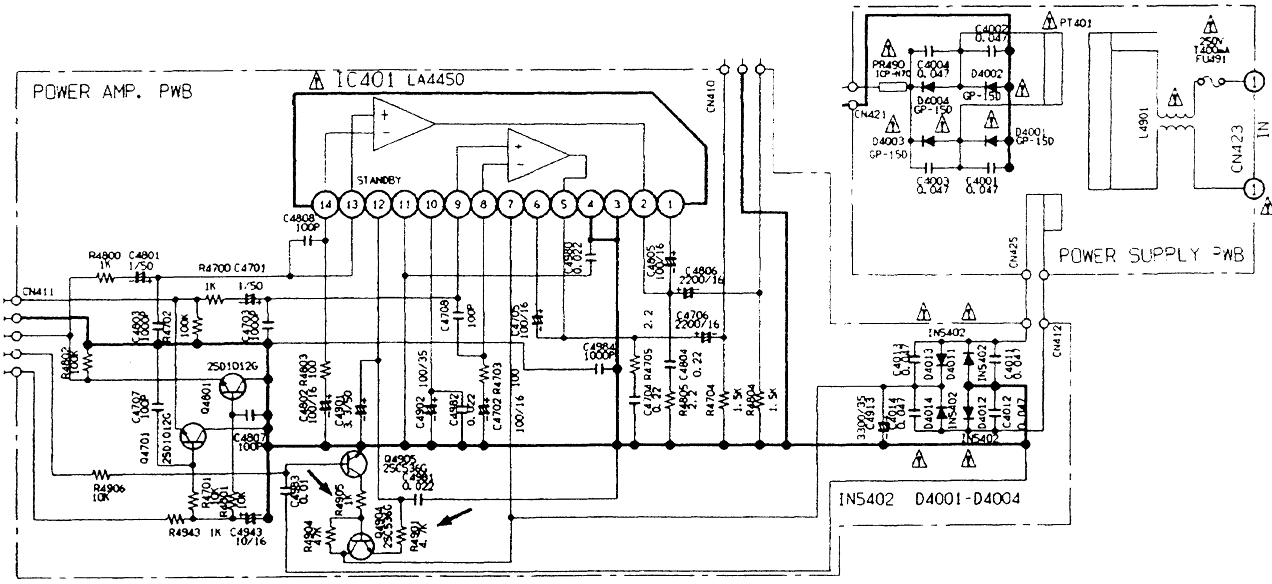
The reason of change.

A : Misprint
B : Quality Reliabilities
C : Standardization
D : Design
E :
F :
G :

Prod. Cord : 129 472 02 (UK)

Page & Section	Ref. No.		Part No.	Description	Q'ty	Interchange-ability	Reason
PARTS CHANGE	R4901	Old	401 024 7004	CARBON 1K JA 1/6W	1	(CANCEL)	B
	R4901	New	401 026 9907	CARBON 4.7K JA 1/6W	1	(ADDITIONAL)	
PARTS CHANGE	R4905	Old	401 026 9907	CARBON 4.7K JA 1/6W	1	(ELIMINATE)	B
	R4905	New	401 024 7004	CARBON 1K JA 1/6W	1	(ADDITIONAL)	

- When the POWER SWITCH is ON and noise is being generated, exchange the R4901 and R4905 resistors on the POWER AMP. P.W.Board to the table below.


POWER AMP. PWB
IC401 LA4450
STANDBY
CN410
CN411
R4800 1K
C4801 1/50
R4700 C4701 1K 1/50
C4808 100P
R4802
2SD1012G
Q4801
Q4701
C4807 100P
R4906 10K
R4943 1K
C4943 10/16
R4701
R4801
R4803
C4802 100/16
C4902 100/35
C4982 0.022
R4703
C4702
C4708 10P
C4705 100/16
C4980 0.022
C4805 100/16
C4806 2200/16
C4706 2200/16
C4984 1000P
R4705
C4804 0.22
C4704 0.22
R4805 2.2
R4704 1.5K
R4804 1.5K
Q4905 2SC536G
C4981 0.022
R4905
R4904 47K
R4901 4.7K
C4983 0.01
PT401
PR490
C4002 0.047
C4004 0.047
D4002 GP-15D
D4004 GP-15D
D4003 GP-15D
D4001 GP-15D
C4003 0.047
C4001 0.047
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L4901
F4491 T400mA 250V
CN423
IN AC 230V 50HZ
CN425
POWER SUPPLY PWB
IN5402
C4011
D4013
D4011
C4014
D4014
D4012
C4012
C4913 3300/35
CN412
IN5402 D4001-D4004

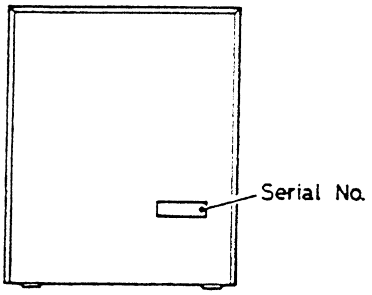
Notes : The Reference No. SM580605-04 is for UK use only.
Reference No. SM580605-02 and SM580605-03 are not used for UK.

REFERENCE No. SM580605-04

WIRING DIAGRAM (POWER AMP.)

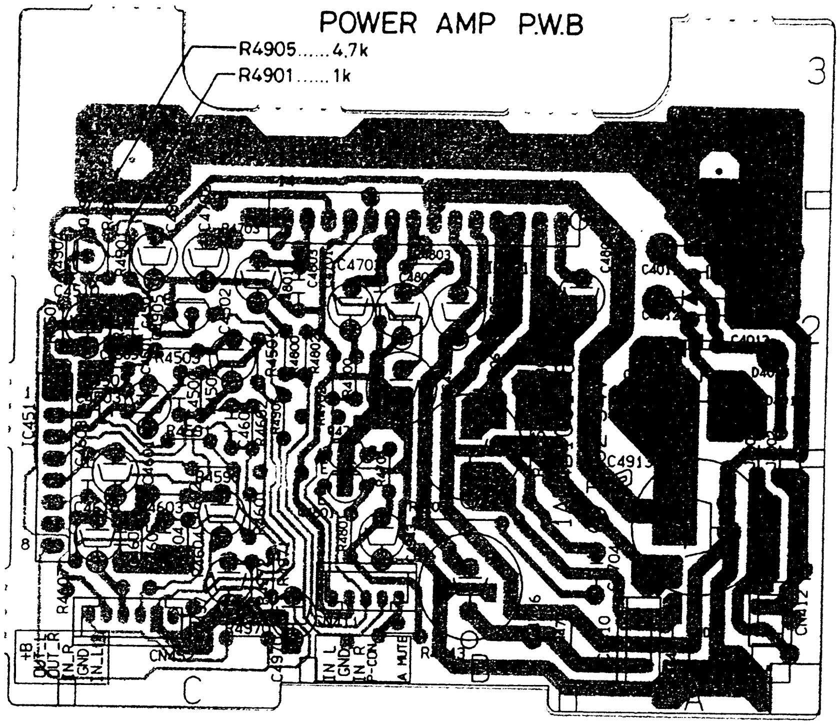
TYPE 1

Serial No. U5XX0001 - U5606530



Exchange the R4901 and R4905 resistors.

R4901 ..... 4.7K → 1K
R4905 ..... 1K → 4.7K


POWER AMP P.W.B
R4905......4.7k
R4901......1k
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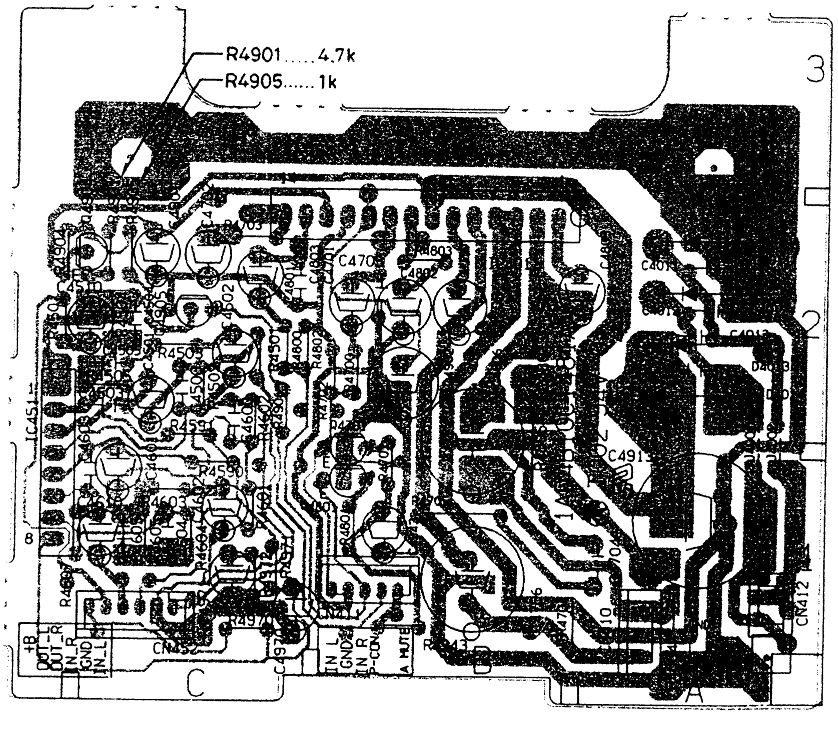
C
A
IC451
CN452
CN411
CN412
C4701
C4803
C4913
+B
OUT_L
OUT_R
IN_R
GND
IN_L
IN_L
GND
IN_R
P-CON
A MUTE

TYPE 2

Serial No. U5606531 -

R4901 ..... 4.7K
R4905 ..... 1K


R4901.....4.7k
R4905......1k
3
2
C
A
IC451
CN452
CN411
CN412
C4701
C4803
C4913
+B
OUT_L
OUT_R
IN_R
GND
IN_L
IN_L
GND
IN_R
P-CON
A MUTE

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

Feb./'96 / 1000 KM Printed in Japan.

Notice

SANYO

☐ CORRECTION ☐ PRODUCTION CHANGE
☑ SERVICE FLASH ☐ ADD INFORMATION
☐ ☐

FILE NO.

Please add this notice to the Service Manual listed below.

Category : Mini Component System
Date : May. 1996
Model : **DC-D9 (Revised)**
Destination : UK
Reference No. : SM580605
Issue Number : 6

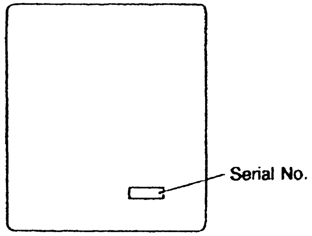
The reason of change.

A : Misprint	B : Quality Reliabilities	C : Standardization
D : Design	E :	F :
G :		

Page & Section	Ref. No.		Part No.	Description	Q'ty	Interchange-ability	Reason
P26 PARTS LIST	503	Old	614 266 1840	HOLDER,CHUCK BRACKET	1	(ELIMINATE)	B
	503	New	614 279 6016	HOLDER,CHUCK BRACKET	1	(ADDITIONAL)	
P26 PARTS LIST	572	Old	614 266 8153	STOPPER,DISC STOPPER	1	(ELIMINATE)	B
	572	New	614 279 0595	STOPPER,DISC STOPPER	1	(ADDITIONAL)	
P20 PARTS LIST	R1350	Old	⚠402 045 0302	RESISTOR 4.7 J- 1W	1	(ELIMINATE)	B
	R1350	New	⚠402 048 1603	RESISTOR 10 J- 1W	1	(ADDITIONAL)	

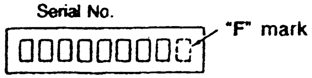
Prod. Cord : 129 472 02

- When the CD is played, if "ME " appears in the **FL display** and the mechanism does not operate as normal, check the CD changer following the procedure described below.



(a) Check the serial number (rear cabinet).
If no "F" is displayed after the eight-digit serial number, carry out the work according to the table on the right.

(b) Fill in a "F" mark after the serial number after the work is completed.



TYPE	1	2
Serial No.	Nothing written, A or B	C, Y or Z
Item	1, 2, 3 and 4	3 and 4

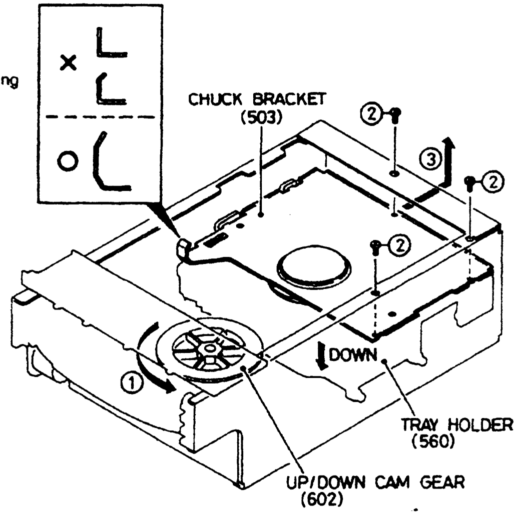
Note : The Reference No. SM580605-06 is for UK use only.

REMOVAL AND INSTALLATION

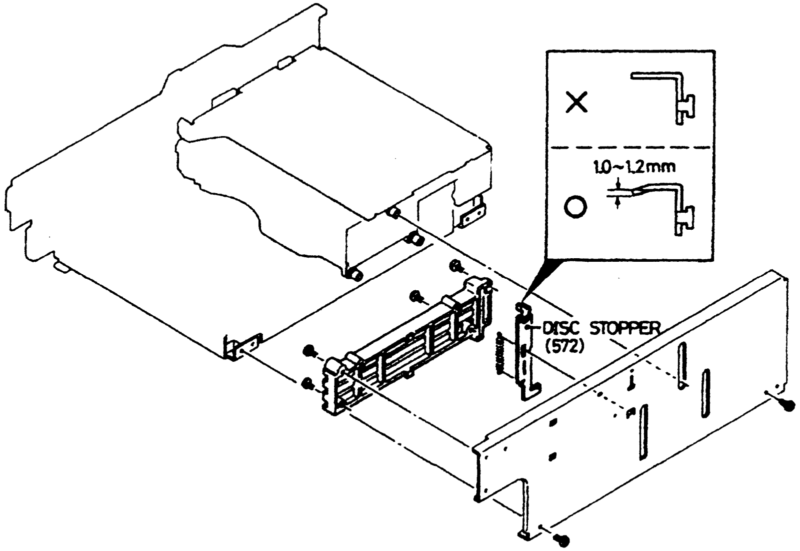
1. CD CHANGER MECHANISM

(a) CHUCK BRACKET (503)

(1) Rotate the UP/DOWN CAM GEAR (602). (①)
(2) Remove the 3 CD changer mechanism mounting screws. (②)
(3) Remove the chuck bracket. (③)



(b) DISC STOPPER (572)



REPLACEMENT

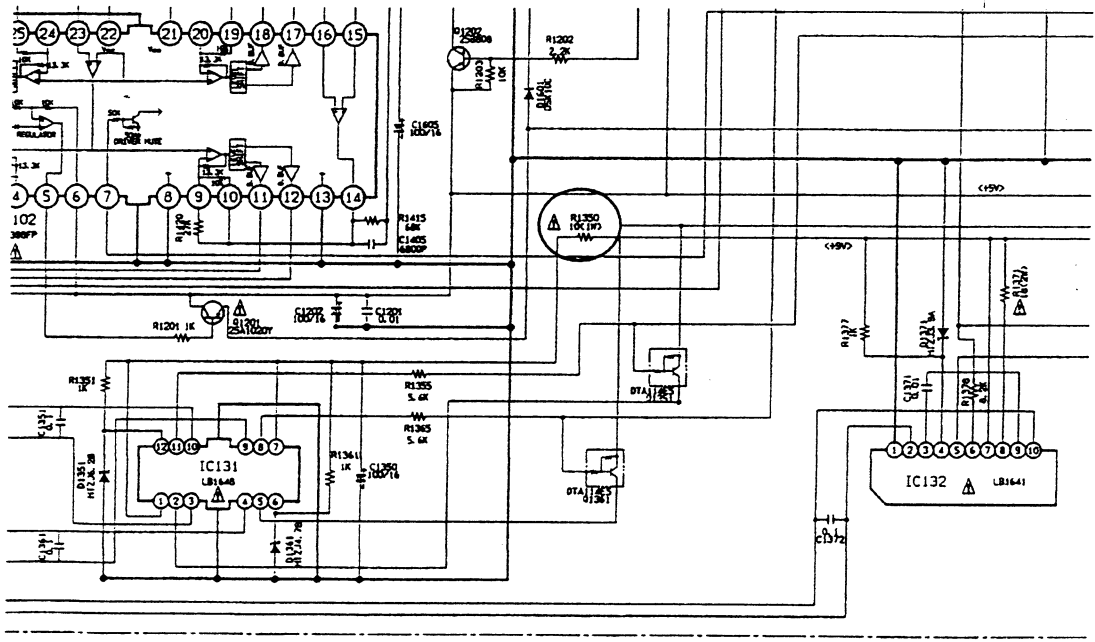
2. CD SECTION

a. RESISTOR, R1350

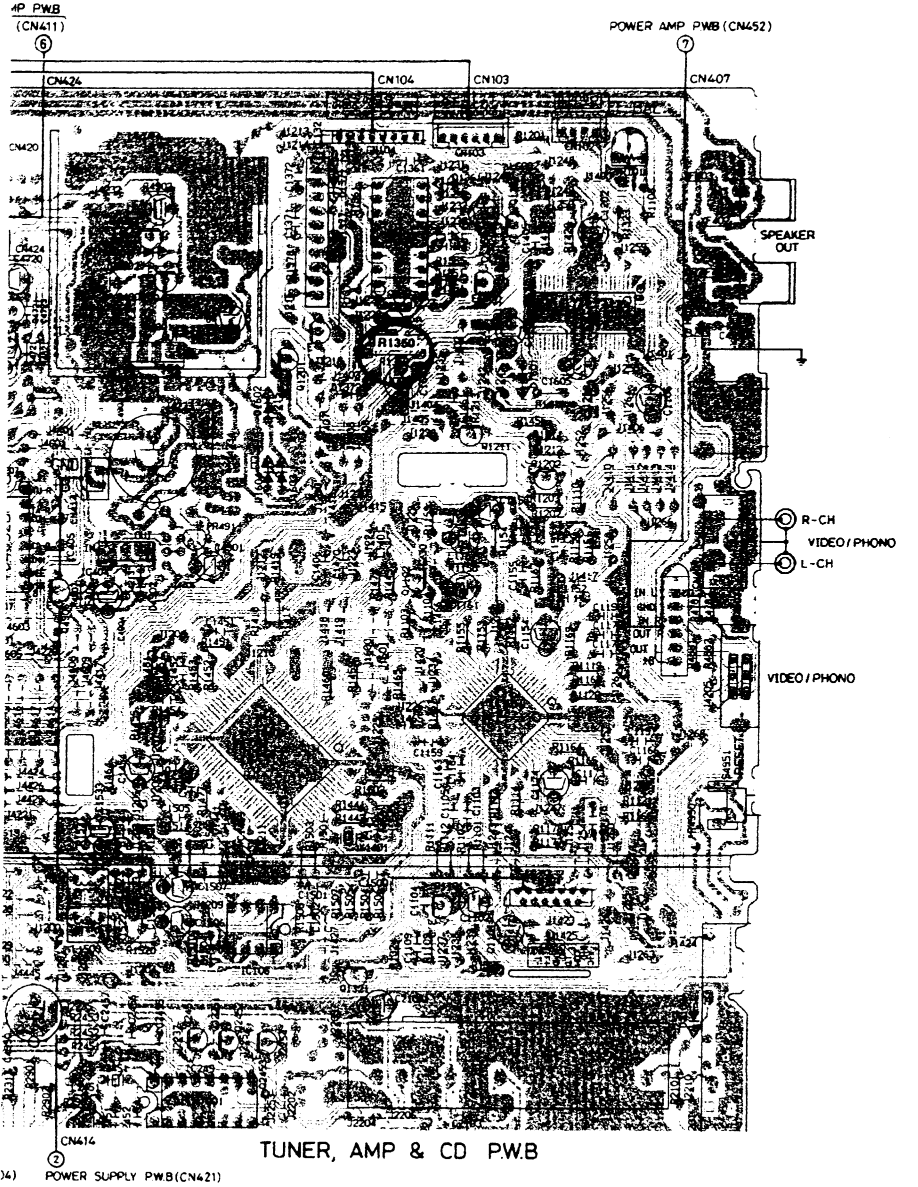
Ref. No.	Part No.	Description
R1350	⚠402 048 1603	RESISTOR 10 J- 1W

R1350

4.7 ohm ± 5% 1W → 10 ohm ± 5% 1W



IC131
LB1648
IC132
LB1641
R1350
10(1W)
R1415
68K
C1405
6800P
C1605
100/16
R1202
2.2K
Q1202
Q1201
2SA1020Y
R1201 1K
C1202
100/16
C1201
0.01
R1351
1K
R1355
5.6K
R1365
5.6K
R1361
1K
C1350
100/16
D1351
D1361
C1372
R1377
1K
<+5V>
102



4P P.W.B
(CN411)
⑥
POWER AMP P.W.B (CN452)
⑦
CN424
CN104
CN103
CN407
CN420
R1350
SPEAKER OUT
R-CH
VIDEO / PHONO
L-CH
VIDEO / PHONO
CN414
②
POWER SUPPLY P.W.B (CN421)

TUNER, AMP & CD P.W.B

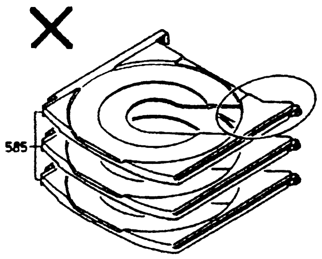
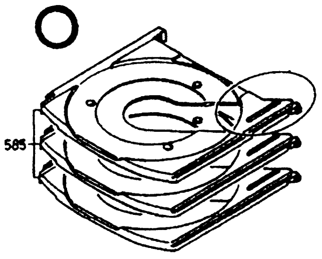
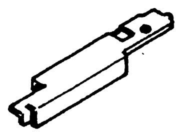
SERVICE FLASH (ADDITIONAL)

3. CD CHANGER MECHANISM (NEW PARTS)

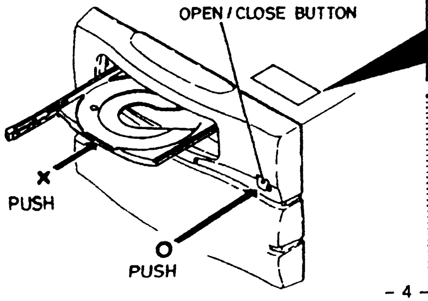
- After the **SERVICE FLASH (REFERENCE No. SM580605-04)** was printed, various changes, such as improvements to the DISC TRAY and the addition of a DISC TRAY HOLDER, were carried out. (Reference No. SM580605-02, SM580605-03 and SM580605-05 is not used for UK.)
- In addition to those given previously, carry out the following procedures.

Page & Section	Ref. No.		Part No.	Description	Q'ty	Interchange-ability	Reason
P26 PARTS LIST	585	Old	614 266 2038	TRAY	3	(ELIMINATE)	B
	585	New	614 282 9127	TRAY ASSY	3	(ADDITIONAL)	
P18 PARTS LIST		Old					
	60	New	614 278 8158	HOLDER, DISC TRAY	1	(ADDITIONAL)	B
P18 PARTS LIST (CABINET)		Old					
		New	614 283 2295	LABEL, CAUTION, OPEN/CLOSE BUTTON	1	(ADDITIONAL)	B
P18 PARTS LIST		Old					
	Y25	New	411 028 2905	SCR S-TPG PAN 2X4MM	1	(ADDITIONAL)	B

(a) TRAY ASSY AND HOLDER

TRAY		HOLDER
		
TRAY (614 266 2038)	TRAY ASSY (614 282 9127)	(614 278 8158)

(b) LABEL,CAUTION (614 283 2295)


OPEN / CLOSE BUTTON
×
PUSH
O
PUSH

Press the OPEN /CLOSE button when closing the disc tray.
Do not push the disc tray.

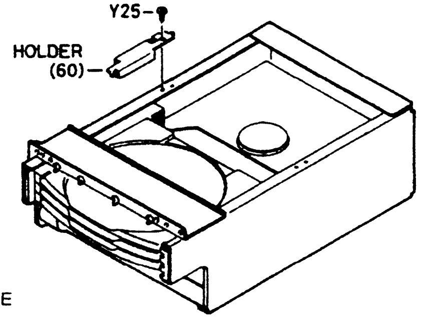
Notes :

- To open or close the disc tray, be sure to use the OPEN/CLOSE button.
- If you push the disc tray by hand, only the tray slips in and the tray slide remains out as shown in Fig.
- In this case, press the OPEN/CLOSE button. Do not touch the disc tray by hand.

SERVICE FLASH (ADDITIONAL)

(c) REPLACEMENT OF THE DISC TRAY

- **Refer to page 1 of this document.**
  Ready three new TRAY ASS'Y (585).

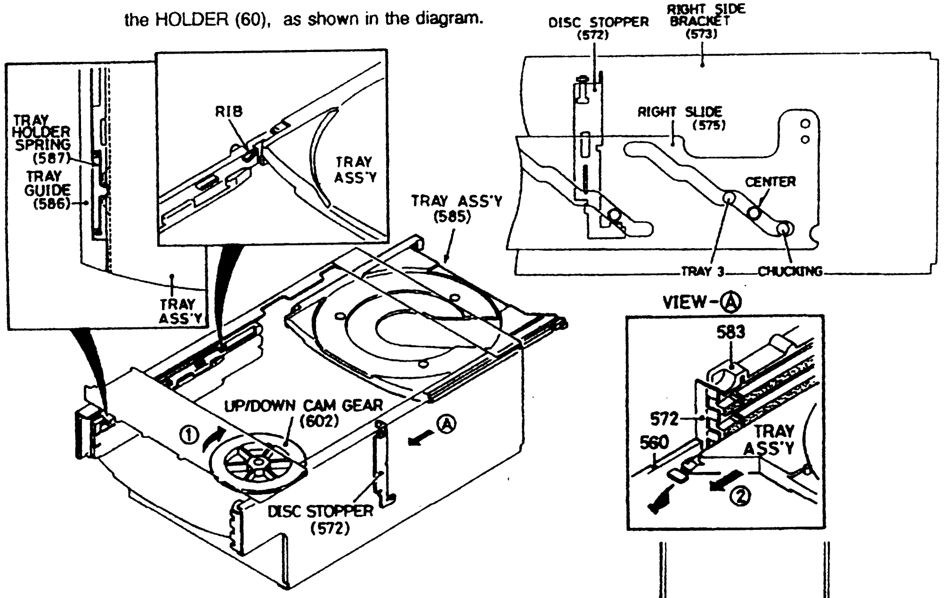

Y25
HOLDER
(60)

(1) Use your finger to rotate the UP/DOWN CAM GEAR (602) in the direction of the arrow so that the UP/DOWN MECHANISM is aligned halfway between the CHUCKING position and the TRAY 3 selection position.
(The position where all trays can be removed.)

(2) Remove the TRAYS (585) from the rear.

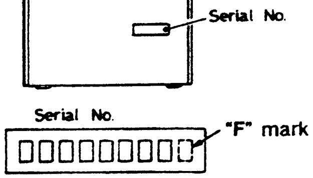
(3) Place the TRAY ASS'Y (585) on the TRAY GUIDE (586) ribbed section, and slowly insert it until it is held by the TRAY HOLDER SPRING (587).

(4) After assembling the MECHANISM, attach the HOLDER (60), as shown in the diagram.

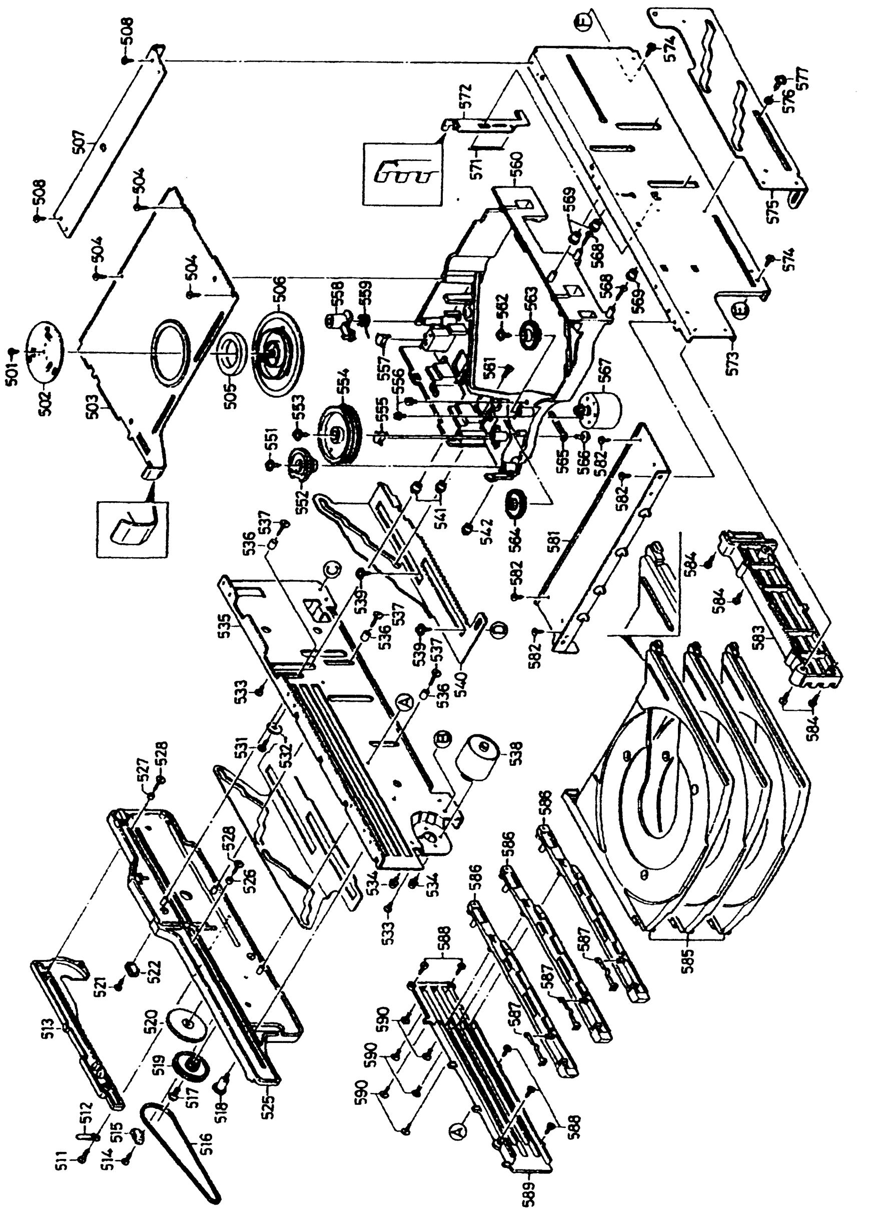

TRAY HOLDER SPRING (587)
TRAY GUIDE (586)
TRAY ASS'Y
RIB
TRAY ASS'Y
TRAY ASS'Y (585)
UP/DOWN CAM GEAR (602)
①
Ⓐ
DISC STOPPER (572)
DISC STOPPER (572)
RIGHT SIDE BRACKET (573)
RIGHT SLIDE (575)
CENTER
TRAY 3
CHUCKING
VIEW-Ⓐ
583
572
560
TRAY ASS'Y
②

4. NOTE

- Fill in a "F" mark after the serial number following completion of the work described in this notice.


Serial No.
Serial No.
"F" mark

EXPLODED VIEW (CD CHANGER MECHANISM) (REVISED)

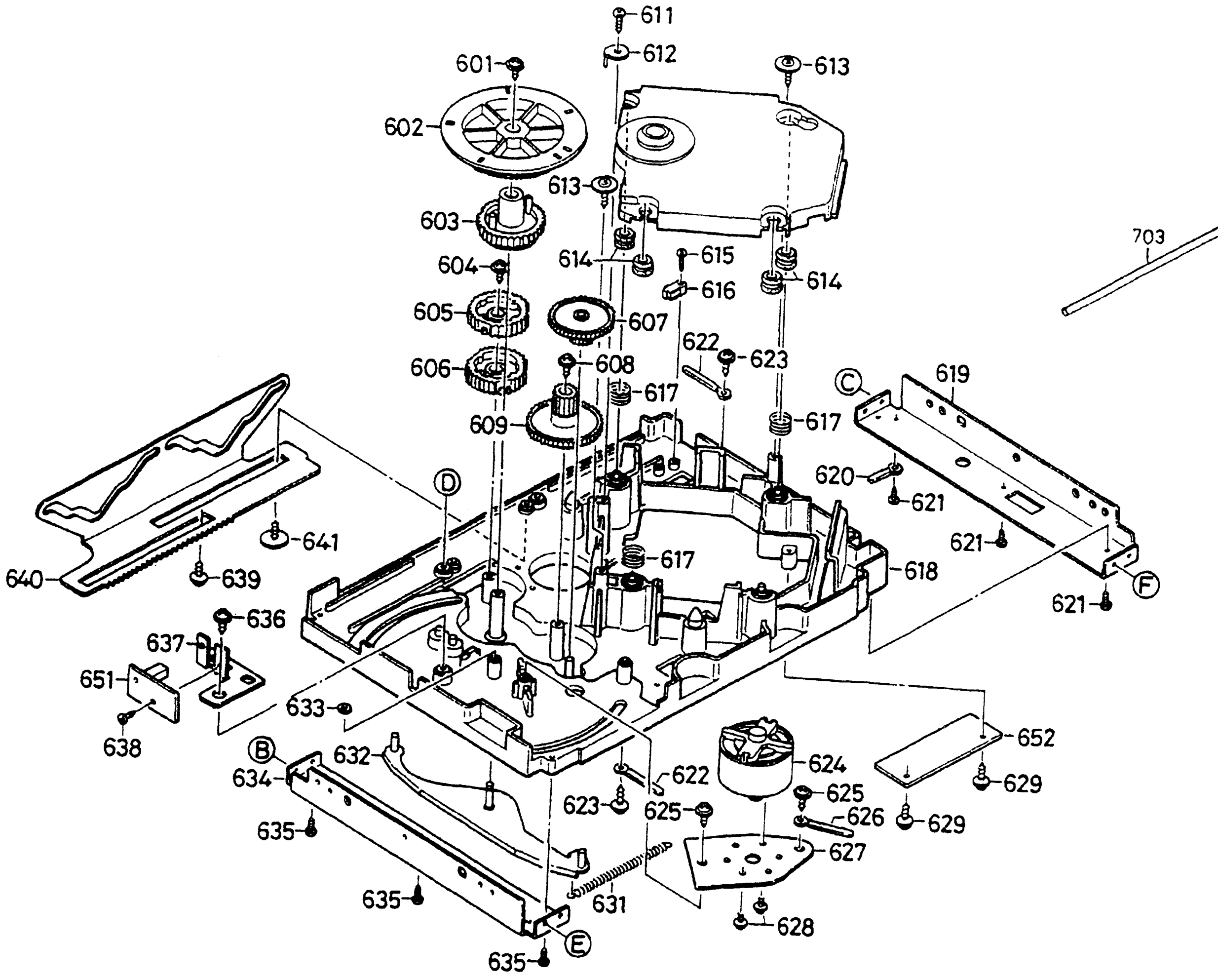


PARTS LIST (REVISED)

CD CHANGER MECHANISM (PM-CDCH3/SH)

Ref. No.	Part No.	Description
501	411 022 7500	SCR S-TPG PAN 2X4MM, CHUCK PULLEY FIX
502	614 266 8061	HOLDER,CHUCK PLATE PULLEY
503	614 279 6016	HOLDER,CHUCK BRACKET
504	411 022 7807	SCR S-TPG PAN 2X6MM, CHUCK BRACKET FIX
505	645 009 9809	MAGNET CHUCK,CHUCKING
506	614 272 1674	ASSY,PULLEY,CHUCK
507	614 266 1918	JOINT,B-TOP ENCOURAGER
508	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
511	411 021 0809	SCR S-TPG BIN 2X6MM,LUG FIX
512	614 129 9341	LUG,OPEN/CLOSE SWITCH LOAD
513	614 266 1833	GEAR,OPEN/CLOSE RACK
514	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
515	645 010 6491	SWITCH,LEVER,OPEN END
516	614 268 5594	BELT,SQUARE,OPEN/CLOSE
517	411 021 2704	SCR S-TPG BIN 2.6X6MM, PULLEY FIX
518	412 004 5706	SPECIAL SCREW,GEAR BLOCK FIX
519	614 266 1987	PULLEY,OPEN/CLOSE IDLER PULLEY
520	614 266 1826	GEAR,OPEN/CLODE IDLER
521	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
522	645 010 6491	SWITCH,LEVER,CLOSE END
525	614 266 1970	MOUNTING,GEAR BLOCK BRACKET
526	614 273 5992	PIPE,GEAR RACK GUIDE(F)
527	614 270 2222	PIPE,GEAR RACK GUIDE(R)
528	412 054 6202	SPECIAL SCREW,2X7.5MM, GEAR RACK FIX
531	411 022 7807	SCR S-TPG PAN 2X6MM, TRAY HOLDER
532	411 091 9702	WASHER V 2X8X0.5MM
533	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
534	411 044 7007	SCR PAN+SW 2X3MM, OPEN/CLOSE MOTOR FIX
535	614 266 1949	MOUNTING,LEFT SIDE BRACKET
536	614 268 0476	PIPE,OPEN/CLOSE BRAKET GUIDE
537	412 054 6202	SPECIAL SCREW,2X7.5MM, MOUNTING FIX
538	645 009 1186	ASSY,MOTOR,OPEN/COLSE
539	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,SLIDE FIX
540	614 266 1994	SLIDE,TRAY HOLDER
541	614 277 9460	PIPE,TRAY HOLDER GUIDE
542	614 268 0469	PIPE,TRAY HOLDER GUIDE (R)
551	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
552	614 266 1819	GEAR,LOAD/UNLOAD DRIVE
553	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
554	614 266 1802	GEAR,LOAD/UNLOAD CAM
555	645 012 5904	SWITCH,UNLOAD END
556	411 044 7205	SCR PAN+SW 2X4MM, LOAD/UNLOAD MTR FIX
557	645 012 5904	SWITCH,LOAD END
558	614 266 1932	LEVER,LOCK
559	614 268 0186	SPRING,WIRE, LOAD/UN-LOAD LOCK LEVER
560	614 266 1963	MOUNTING,TRAY HOLDER
561	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
562	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
563	614 266 8030	GEAR,LOAD/UNLOAD IDLER1
564	614 266 1796	GEAR,LOAD/UNLOAD IDLER2
565	614 129 9136	LUG,LEAD MTG.
566	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
567	645 009 1193	ASSY,MOTOR,LOAD/UNLOAD
568	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
569	614 268 0469	PIPE,TRAY HOLDER GUIDE
571	614 268 0162	SPRING,TENSION,STOPPER PULL
572	614 279 0595	STOPPER,DISC STOPPER
573	614 266 1956	MOUNTING,RIGHT SIDE BRAKET
574	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
575	614 268 2906	ASSY,SLIDE,RIGHT
576	614 270 2239	PIPE,RIGHT SLIDE GUIDE
577	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, RIGHT SLIDE FIX
581	614 266 1901	JOINT,F-TOP ENCOURAGER
582	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
583	614 266 1864	HOLDER,RIGHT,TRAY GUIDE
584	411 028 3100	SCR S-TPG PAN 2X6MM, HOLDER FIX
585	614 282 9127	TRAY ASSY
586	614 266 1871	HOLDER,TRAY GUIDE
587	614 266 8924	SPRING,PLATE,TRAY HOLD
588	411 028 2905	SCR S-TPG PAN 2X4MM, HOLDER FIX
589	614 266 1857	HOLDER,LEFT,TRAY GUIDE
590	412 047 3904	SPECIAL SCREW 2X7.5MM, HOLDER FIX
601	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
602	614 266 1758	GEAR,UP/DOWN CAM (1)
603	614 266 1765	GEAR,UP/DOWN CAM (2)
604	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
605	614 266 1772	GEAR,UP/DOWN DRIVE (1)
606	614 266 1789	GEAR,UP/DOWN DRIVE (2)
607	614 266 1734	GEAR,UP/DOWN IDLER 1
608	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
609	614 266 1741	GEAR,UP/DOWN IDLER 2
611	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,HOLDER FIX
612	614 267 6998	HOLDER.BASE MECHANISM FIX
613	614 279 1202	SPECIAL SCREW.BLACK, BASE MECHANISM FIX
614	614 237 7031	CUSHION,RUBBER,FLOATING
615	411 021 1202	SCR S-TPG BIN 2X8MM, PLAY SW FIX
616	645 010 6491	SWITCH,LEVER,PLAY
617	614 247 4907	SPRING,COMP,FLOATING
618	614 266 1727	CHASSIS.BOTTOM CHASSIS
619	614 266 1888	JOINT,BOTTOM BACK
620	614 129 9341	LUG,OPEN/CLOSE SWITCH LEAD

EXPLODED VIEW (CD CHANGER & BASE MECHANISM) (REVISED)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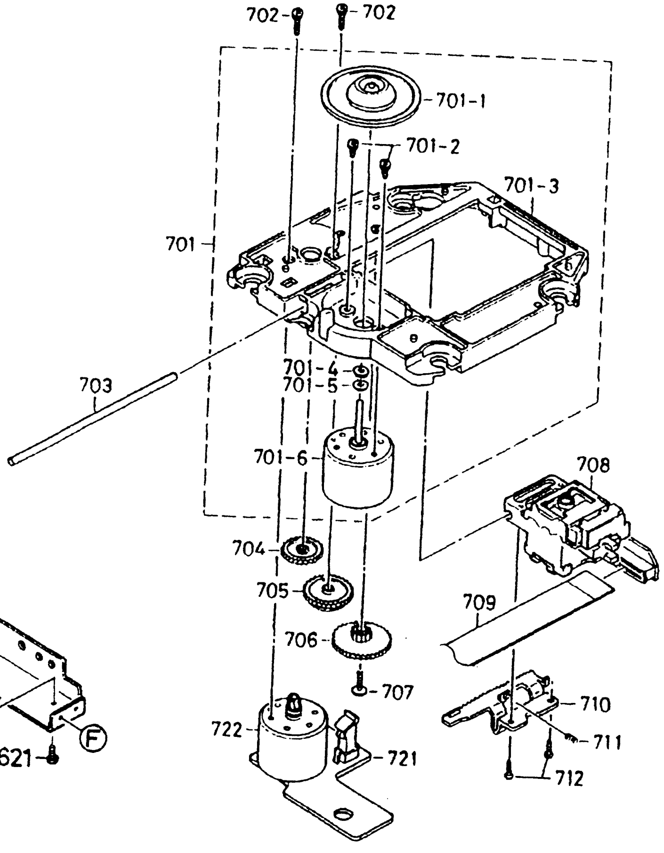
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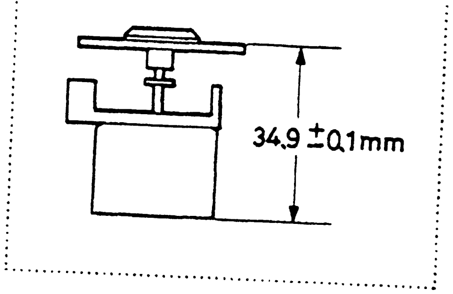
NOTE: TURN TABLE MOUNTING



PARTS LIST (REVISED)

Ref. No.	Part No.	Description
621	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
622	614 129 9136	LUG,LOAD/UN-LOAD SWITCH LEAD
623	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
624	614 268 2890	ASSY,MOTOR,UP/DOWN
625	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, BRACKET MOTOR FIX
626	614 129 9136	LUG,SENSOR LEAD
627	614 266 8054	HOLDER,BRACKET MOTOR
628	411 102 6300	SCR PAN-FLG 2.6X2.8MM, UP/DOUN MOTOR FIX
629	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,CHUKEI PWB FIX
631	614 268 0155	SPRING,TENSION, SYNCRO LEVER PULL
632	614 268 2883	ASSY,LEVER,SYNCRO
633	614 127 1576	WASHER,LEVER ASSY FIX
634	614 272 6600	JOINT,BOTTOM FRONT
635	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
636	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SENSOR BK FIX
637	614 266 9907	HOLDER,SENSOR BRACKET
638	411 028 2905	SCR S-TPG PAN 2X4MM, SENSOR PWB FIX
639	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SLIDE FIX
640	614 266 2007	SLIDE,TRAY SLISE
641	412 005 2307	SPECIAL SCREW,3X10MM (WITH WASHER 3X14X1MM)
	614 269 6026	ASSY,WIRE,5P,SENSOR, UP/DOWN MOTOR
	614 269 6033	ASSY,WIRE,6P, LOAD/UNLOAD/PLAY SWITCH
	614 269 6040	ASSY,WIRE,4P, LOAD/UNLOAD,UP/DOWN MOTOR
	614 269 6057	ASSY,WIRE,4P, OPEN/CLOSE SWITCH

CD SENSOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
651	614 270 1928	ASSY,PWB,SENSOR
D191	407 177 6109	PHOTO COUPLE GP1A53E

CD CONNECTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
652	614 267 6646	ASSY,PWB CD,CONNECTOR, CHANGER
CN191	645 006 0915	PLUG,4P,LOAD/UNLOAD SWITCH
or	645 009 6440	PLUG,4P,LOAD/UNLOAD SWITCH
CN192	645 004 2706	PLUG,4P,LOAD/UNLOAD,UP/DOWN MOTOR
or	645 014 9825	PLUG,4P,LOAD/UNLOAD,UP/DOWN MOTOR
CN193	645 006 0939	PLUG,6P,OPEN/CLOSE/PLAY SWITCH
or	645 009 6464	PLUG,6P,OPEN/CLOSE/PLAY SWITCH
CN194	645 006 0922	PLUG,5P,SENSOR,UP/DOWN MOTOR
or	645 009 6457	PLUG,5P,SENSOR,UP/DOWN MOTOR
CN195	645 006 0915	PLUG,4P,CD,PWB
or	645 009 6440	PLUG,4P,CD,PWB
CN196	645 006 0953	PLUG,8P,CD,PWB
or	645 009 6488	PLUG,8P,CD,PWB

CD BASE MECHANISM (PM-CDBM94D2SH)

Ref. No.	Part No.	Description
701	614 270 2031	ASSY,CHASSIS,BASE MECHANISM
701-1	614 268 3354	ASSY,TURNTABLE,SPINDLE
701-2	411 044 7502	SCR PAN+SW 2X5MM, SPINDLE MOTOR FIX
701-3	614 262 2582	CHASSIS,BASE MECHANISM
701-4	412 032 0208	SPECIAL WASHER,1.9X5X0.3MM
701-5	412 014 5603	SPECIAL WASHER,TURNTABLE STOPPER
701-6	645 007 7821	MOTOR,CD-SPINDLE DC 0.2W, SPINDLE MOTOR
702	411 044 8004	SCR PAN+SW 2X8MM, SLED MOTOR FIX
703	614 237 7024	SHAFT,PICK-UP RAIL
or	614 277 8029	SHAFT,PICK-UP RAIL
704	614 237 7093	GEAR,SLED RETARD GEAR 1
705	614 237 7109	GEAR,SLED RETARD GEAR 2
706	614 237 7116	GEAR,SLED
707	412 047 3904	SPECIAL SCREW 2X7.5MM, SLED GEAR FIX
708	645 006 7983	PICKUP,LASER,SF-P100
709	645 009 9960	FLEXIBLE FLAT CABLE,13P, PICK-UP
710	614 262 2599	GEAR,RACK PICK-UP RACK GEAR
711	614 238 6934	SPRING,COMP,PICK-UP RACK GEAR
712	411 152 4301	SCR S-TPG PAN PCS 1.7X6MM, PICK RACK GEAR FIX
722	645 007 7814	ASSY,MOTOR CD-SLED
	614 270 2543	ASSY,CONNECTOR-S,6P, BASE MECHANISM

BASE MECHANISM P.W.BOARD ASSY

Ref. No.	Part No.	Description
721	614 254 0664	ASSY,PWB,MOTOR & LIMIT SWITCH
CN001	645 006 0939	PLUG,6P
S001	645 012 5836	SWITCH,LEAF,LIMIT SWITCH

SANYO

Notice

☐ CORRECTION ☑ PRODUCTION CHANGE

☐ SERVICE FLASH ☐ ADD INFORMATION

☐ ☐

FILE NO.

Please add this notice to the Service Manual listed below.

Category : Mini Component System

Date : July. 1996

Model : DC-D9

Destination : XE/UK

Reference No. : SM580605

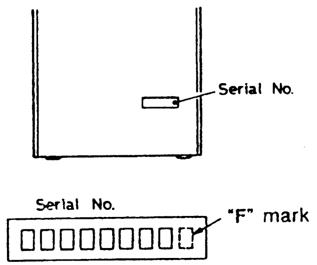
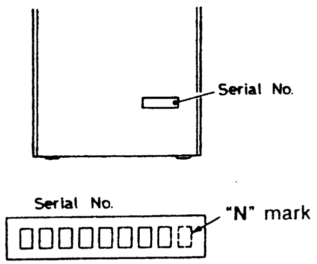
Issue Number : 7

Prod. Cord : 129 472 03 (XE)
129 472 02 (UK)

CONTENTS

1. CD CHANGER OPERATION DESCRIPTION 1
2. CD CHANGER REPLACEMENT 5
3. CD MECHANISM ADJUSTMENTS 10
4. EXPLODED VIEW 12
5. CD CHANGER MECHANISM PARTS LIST 13

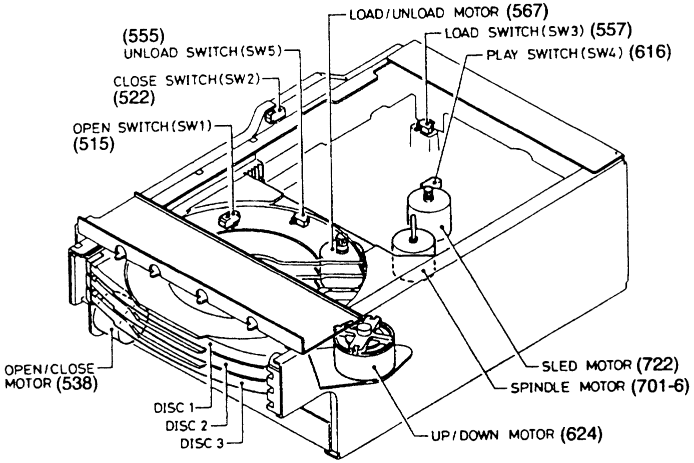
Since there are two type of DC-D9, which are used in different CD changer mechanism, before servicing, please be sure which type of DC-D9 you will repair.
You can find the proper type of it by comfirming the serial number.

TYPE	1	2
SERIAL NO.		
CD MECHANISM	PM-CDCH3/SH	PM-CD96CHN1/SH
SERVICE MANUAL AND (NOTICE)	SM580605 SM580605-05 (XE), SM580605-06 (UK) (SERVICE FLASH)	SM580605 SM580605-07 (PRODUCTION CHANGE NOTICE)

CD CHANGER OPERATION DESCRIPTION

- This set is capable of stocking and playing up to 3 CDs.
- While playing a CD, other discs can be replaced.
  In this case, press the button for the disc No. you wish to remove, and then press the OPEN/CLOSE button.
- When the "POWER" button is turned off, the power turns off after the discs are loaded in the disc trays.

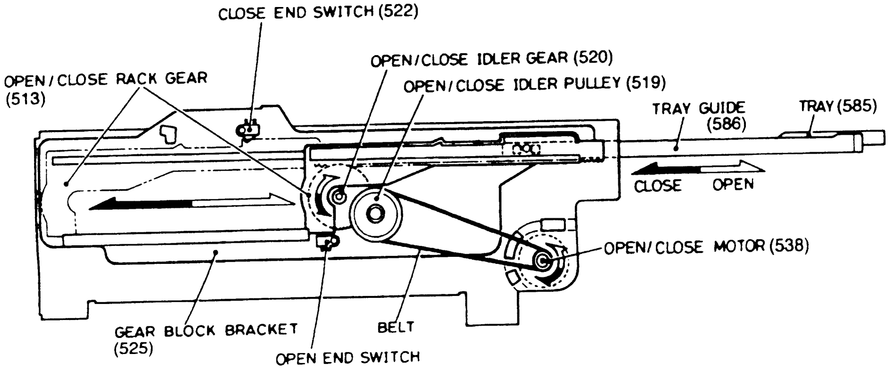
a. MOTOR & MECHANISM SWITCHES LAYOUT


LOAD/UNLOAD MOTOR (567)
(555) UNLOAD SWITCH(SW5)
LOAD SWITCH(SW3) (557)
PLAY SWITCH(SW4) (616)
CLOSE SWITCH(SW2) (522)
OPEN SWITCH(SW1) (515)
OPEN/CLOSE MOTOR (538)
DISC 1
DISC 2
DISC 3
SLED MOTOR (722)
SPINDLE MOTOR (701-6)
UP/DOWN MOTOR (624)

b. FUNCTION

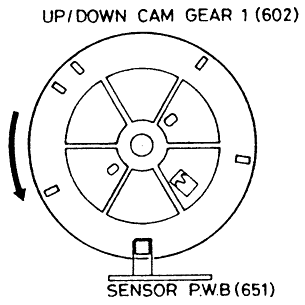
(1) OPEN/CLOSE

(a) The rotation of the OPEN/CLOSE MOTOR rotates the OPEN/CLOSE IDLER GEAR via the BELT and PULLEY, and the RACK GEAR which is intermeshed with the OPEN/CLOSE IDLER GEAR moves forward during "OPEN", backwards during "CLOSE".


CLOSE END SWITCH (522)
OPEN/CLOSE RACK GEAR (513)
OPEN/CLOSE IDLER GEAR (520)
OPEN/CLOSE IDLER PULLEY (519)
TRAY GUIDE (586)
TRAY (585)
CLOSE
OPEN
OPEN/CLOSE MOTOR (538)
GEAR BLOCK BRACKET (525)
BELT
OPEN END SWITCH

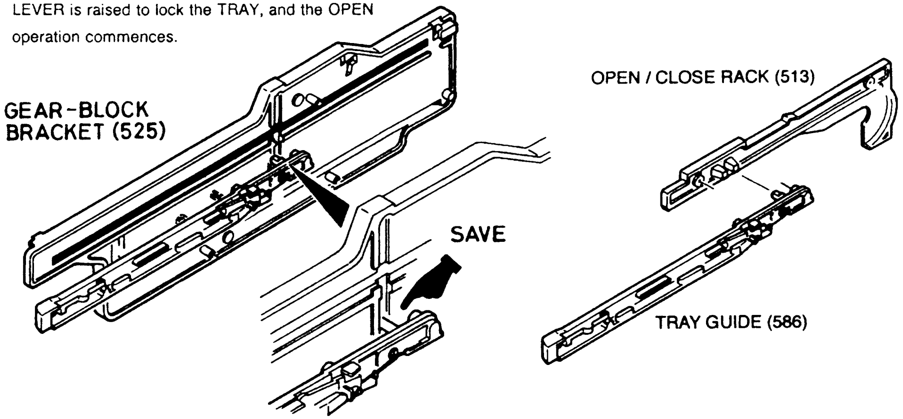
CD CHANGER OPERATION DESCRIPTION

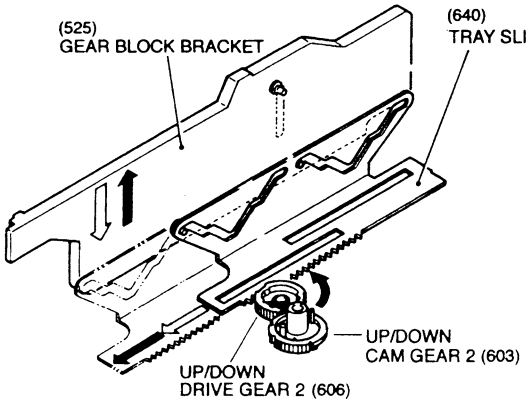
- The HOME POSITION is reached when the largest square hole in the UP/DOWN CAM GEAR (602) is between the SENSORS.


UP/DOWN CAM GEAR 1 (602)
SENSOR P.W.B (651)

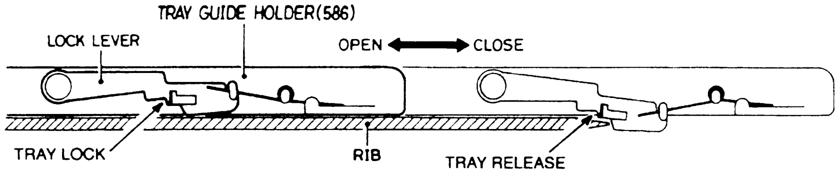
(b) Rotate the UP/DOWN CAM GEAR (602) counterclockwise (with OPEN/CLOSE during PLAY) or clockwise (with normal OPEN/CLOSE), raise the GEAR-BLOCK BRACKET, stop at the selected TRAY, hold the TRAY GUIDE by means of the OPEN/CLOSE RACK and save the other TRAY GUIDES.

(c) The OPEN/CLOSE motor starts running, the OPEN/CLOSE RACK moves foward, the TRAY LOCK LEVER is raised to lock the TRAY, and the OPEN operation commences.


GEAR-BLOCK BRACKET (525)
SAVE
OPEN / CLOSE RACK (513)
TRAY GUIDE (586)


(525) GEAR BLOCK BRACKET
(640) TRAY SLIDE
UP/DOWN CAM GEAR 2 (603)
UP/DOWN DRIVE GEAR 2 (606)

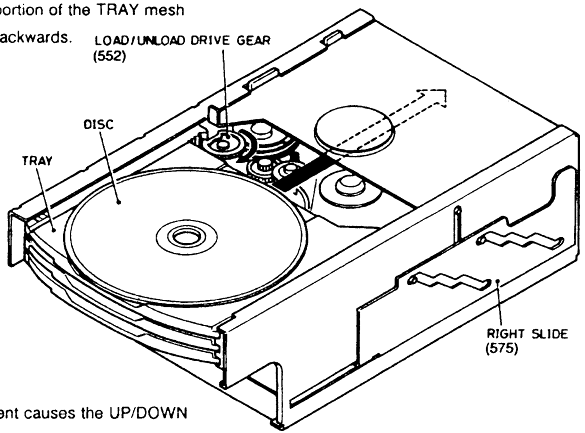
(d) When the TRAY closes and it reaches the tip of the RIB part of the LEFT TRAY GUIDE (589), the LOCK LEVER is lowered to release the TRAY, and loading proceeds.


TRAY GUIDE HOLDER(586)
LOCK LEVER
OPEN
CLOSE
TRAY LOCK
RIB
TRAY RELEASE

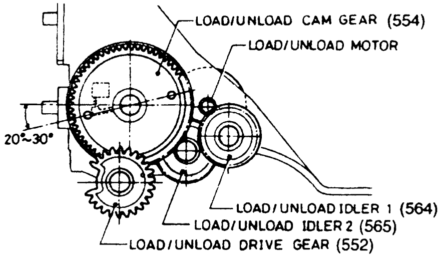
(2) LOADING

(a) The rotation of the LOAD/UNLOAD MOTOR rotates the LOAD/UNLOAD DRIVE GEAR (552) in the clockwise direction.

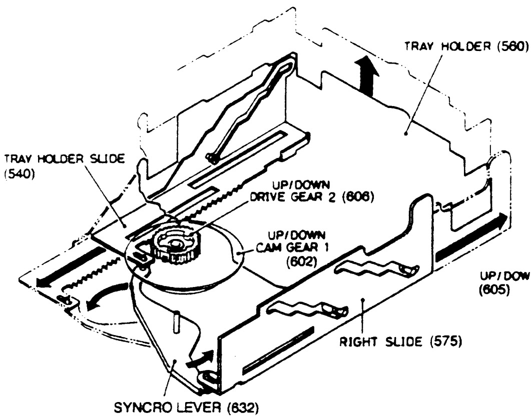
(b) The DRIVE GEAR and the gear portion of the TRAY mesh together and the TRAY movers backwards.

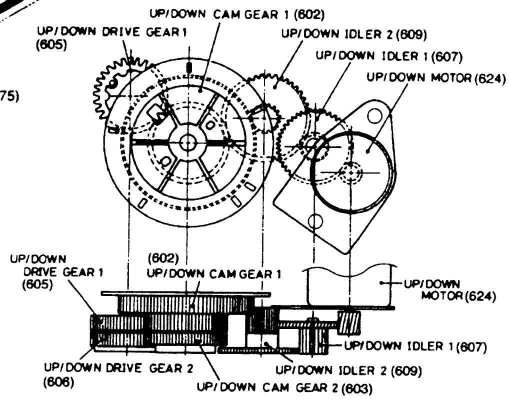

LOAD/UNLOAD DRIVE GEAR (552)
DISC
TRAY
RIGHT SLIDE (575)

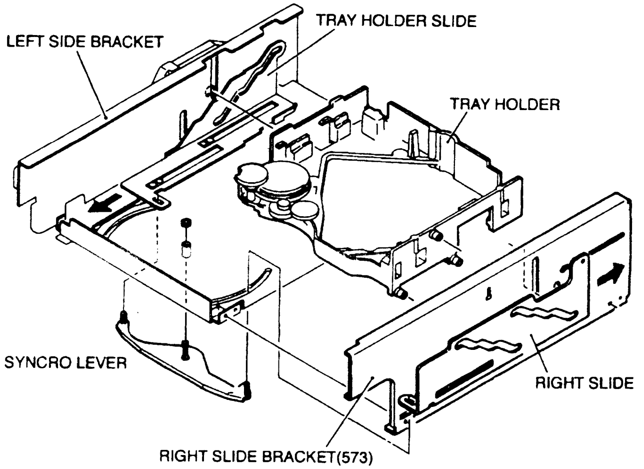
(c) The completion of TRAY movement causes the UP/DOWN MOTOR to operate and lower the TRAY HOLDER (560), putting the unit to chucking stayus.


LOAD/UNLOAD CAM GEAR (554)
LOAD/UNLOAD MOTOR
20°~30°
LOAD/UNLOAD IDLER 1 (564)
LOAD/UNLOAD IDLER 2 (565)
LOAD/UNLOAD DRIVE GEAR (552)

(d) The rotation of the UP/DOWN MOTOR (624) rotates the UP/DOWN DRIVE GEAR (605) in the counter-clockwise direction. In connection with this, the TRAY HOLDER SLIDE (540) moves forward, and at the same time, the RIGHT SLIDE (575) is moved backwards by the SYNCRO LEVER (632).


TRAY HOLDER (560)
TRAY HOLDER SLIDE (540)
UP/DOWN DRIVE GEAR 2 (606)
UP/DOWN CAM GEAR 1 (602)
RIGHT SLIDE (575)
SYNCRO LEVER (632)


UP/DOWN CAM GEAR 1 (602)
UP/DOWN DRIVE GEAR 1 (605)
UP/DOWN IDLER 2 (609)
UP/DOWN IDLER 1 (607)
UP/DOWN MOTOR (624)
UP/DOWN DRIVE GEAR 1 (605)
(602) UP/DOWN CAM GEAR 1
UP/DOWN MOTOR (624)
UP/DOWN IDLER 1 (607)
UP/DOWN DRIVE GEAR 2 (606)
UP/DOWN IDLER 2 (609)
UP/DOWN CAM GEAR 2 (603)

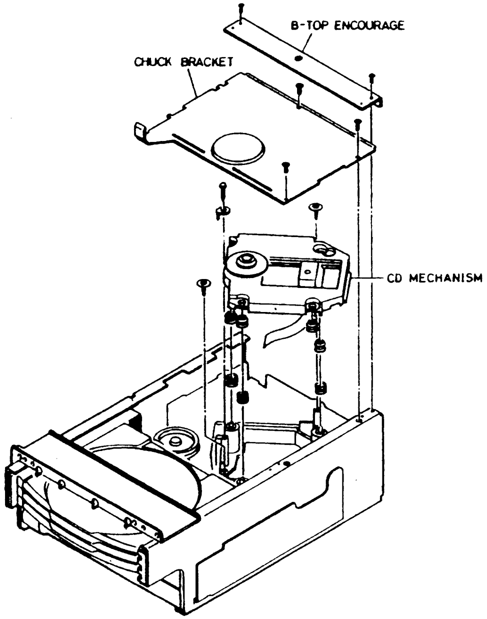

LEFT SIDE BRACKET
TRAY HOLDER SLIDE
TRAY HOLDER
SYNCRO LEVER
RIGHT SLIDE
RIGHT SLIDE BRACKET(573)

CD CHANGER REPLACEMENT

a. LOAD/UNLOAD FUNCTION

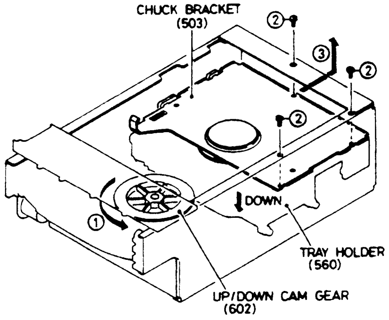
(1) Remove the B TOP ENCOURAGE.

(2) Remove the CD MECHANISM.

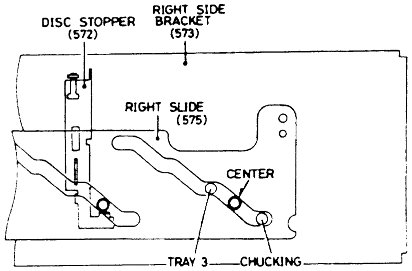

B-TOP ENCOURAGE
CHUCK BRACKET
CD MECHANISM

b. HOW TO REMOVE THE TRAYS

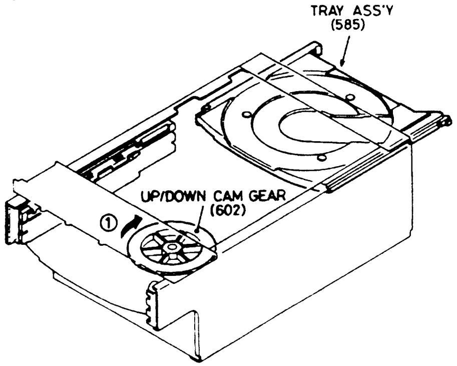
(1) Remove the CHUCK BRACKET.


CHUCK BRACKET
(503)
②
③
②
②
DOWN
①
TRAY HOLDER
(560)
UP/DOWN CAM GEAR
(602)

(2) Rotate the UP/DOWN CAM GEAR (602) and position the collar part of the TRAY HOLDER visible from the RIGHT SLIDE at the midpoint between the CHUCKING and TRAY 3.


DISC STOPPER
(572)
RIGHT SIDE
BRACKET
(573)
RIGHT SLIDE
(575)
CENTER
TRAY 3
CHUCKING

(3) Remove the three TRAYS through the gap at the back.


TRAY ASS'Y
(585)
UP/DOWN CAM GEAR
(602)
①

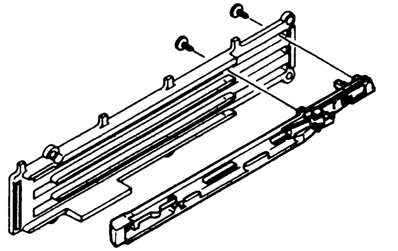
CD CHANGER REPLACEMENT

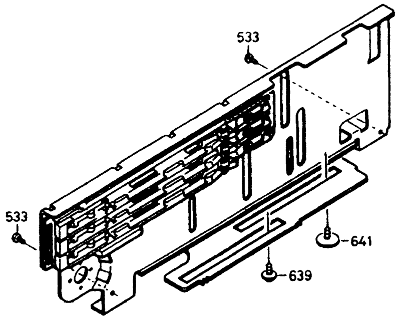
c. REPLACING THE TRAY GUIDE

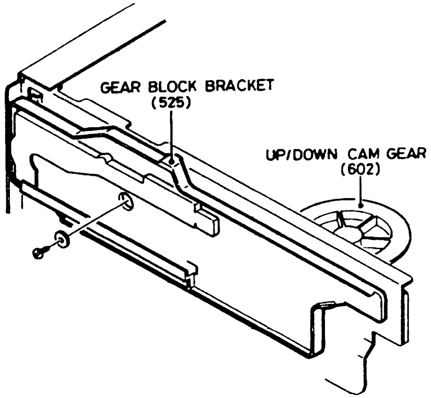
- Have the LEFT TRAY GUIDE HOLDER and TRAY GUIDE ready before proceeding.

(1) Turn the UP/DOWN CAM GEAR (602) and remove the setscrew of the TRAY HOLDER from the hole in the GEAR BLOCK BRACKET.

(2) Turn the UP/DOWN CAM GEAR (602) counterclockwise as far as it will go, and remove the SCREWS (533 x 2, 639, 641).

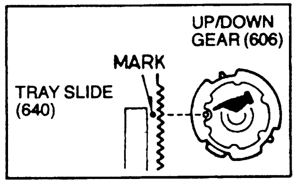


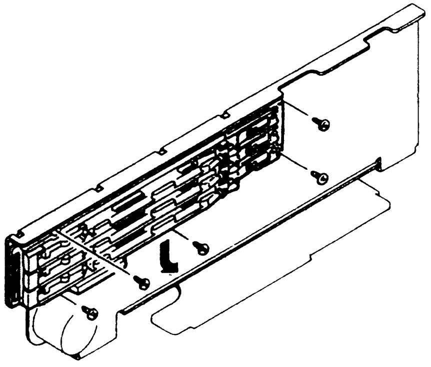

533
533
641
639


GEAR BLOCK BRACKET
(525)
UP/DOWN CAM GEAR
(602)

(3) Remove the five setscrews of the LEFT TRAY GUIDE HOLDER, and remove it in the direction of the arrow.

(4) When assembling the parts, align the TRAY SLIDE (640) and UP/DOWN DRIVE GEAR (606).


UP/DOWN
GEAR (606)
MARK
TRAY SLIDE
(640)



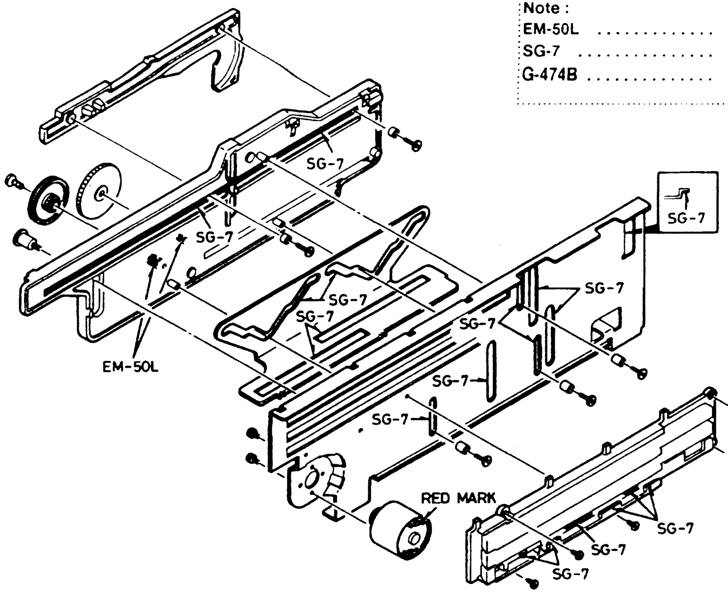
CD CHANGER REPLACEMENT

d. LEFT SIDE BRACKET

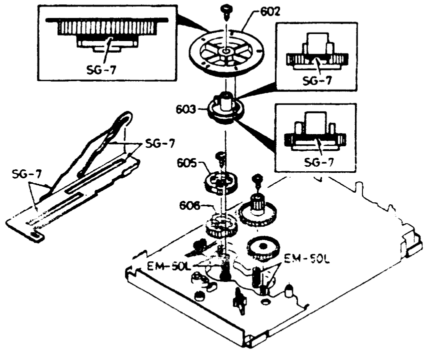
OF THE LUBRICATION

Note :

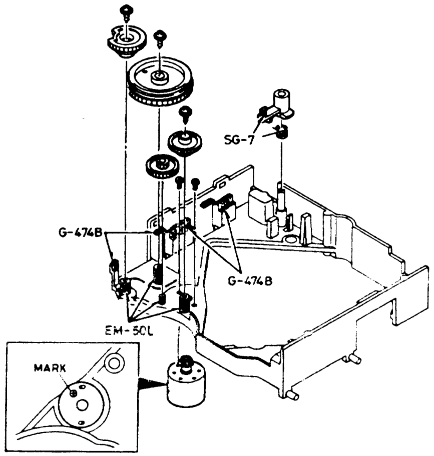
EM-50L	MOLYKOTE, EM-50L
SG-7	SAN GREASE, SG-7
G-474B	FLOIL OIL, G-474B


SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
EM-50L
RED MARK
SG-7
SG-7
SG-7

e. UP/DOWN CAM GEAR

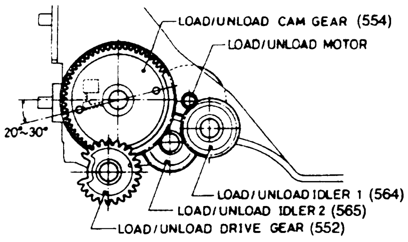

SG-7
602
SG-7
SG-7
603
SG-7
SG-7
605
606
EM-50L
EM-50L

f. LOAD/UNLOAD GEAR

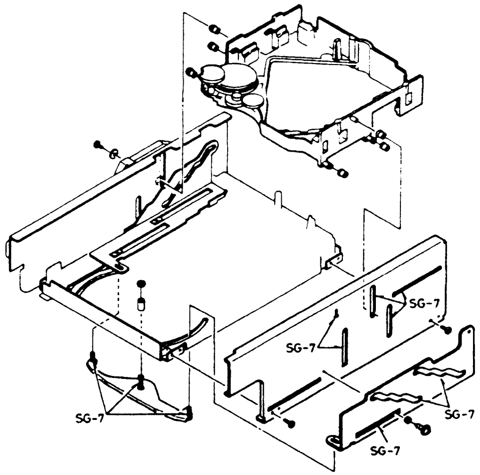

SG-7
G-474B
G-474B
EM-50L
MARK

CD CHANGER REPLACEMENT

g. SETTING UP THE LOAD/UNLOAD GEAR


LOAD/UNLOAD CAM GEAR (554)
LOAD/UNLOAD MOTOR
20°~30°
LOAD/UNLOAD IDLER 1 (564)
LOAD/UNLOAD IDLER 2 (565)
LOAD/UNLOAD DRIVE GEAR (552)

h. TRAY HOLDER

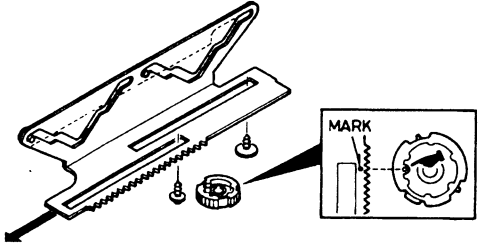

SG-7
SG-7
SG-7
SG-7
SG-7

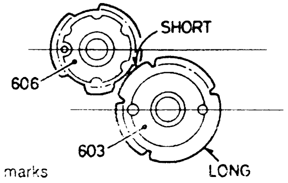
i. SETTING UP THE TRAY SLIDE AND UP/DOWN DRIVE GEAR (603)

(1) Slide the TRAY SLIDE forward until it goes no further.

(2) Align the round mark on the UP/DOWN DRIVE GEAR with the mark area on the TRAY SLIDE, and install.

(3) Align the shorter flat part of the UP/DOWN CAM GEAR (603), and install.



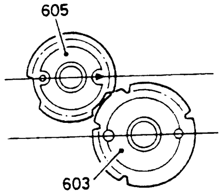

SHORT
606
603
LONG

- Set the parts in such a way that the round marks on the two GEARS (606, 603) are horizontal.

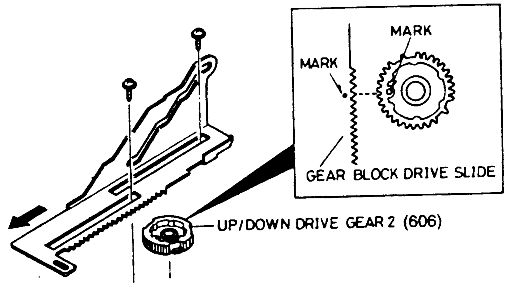
CD CHANGER REPLACEMENT

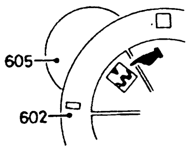
j. SETTING UP THE TRAY HOLDER AND UP/DOWN DRIVE GEAR (605)

(1) Loosen and install the SET SCREW of the SENSOR P.W.B.
(2) Slide the TRAY HOLDER SLIDE forward until it goes no further.
(3) Align the round mark on the UP/DOWN GEAR (605) with the mark area on the TRAY HOLDER SLIDE, and install.
(4) Secure the screw.
(5) As shown in the figure, place the UP/DOWN DRIVE GEAR (603) and UP/DOWN CAM GEAR (605) in such a way that they are horizontal.
(6) Align with the triangular mark through the hole through which the UP/DOWN CAM GEAR teeth are visible.
(7) Secure the SCREW of the SENSOR and GEAR.



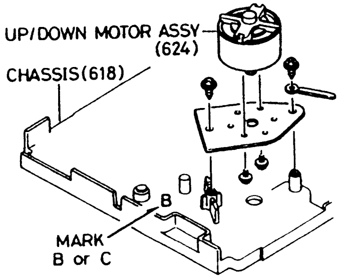
- Set the parts in such a way that the round marks on the two GEARS (606, 603) are horizontal.

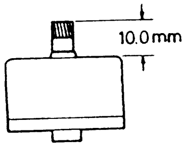
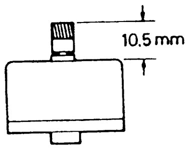

MARK
MARK
GEAR BLOCK DRIVE SLIDE
UP/DOWN DRIVE GEAR 2 (606)



k. TRAY HOLDER SLIDE

There are two types UP/DOWN MOTOR (624) which have been used.
These UP/DOWN MOTOR (624) can be used not interchangeably.
Use the following procedure in accordance with which type of UP/DOWN MOTOR (624) and chassis (618) you will replace.
Please be sure which type of motor you have before serving.


UP/DOWN MOTOR ASSY (624)
CHASSIS(618)
B
MARK
B or C

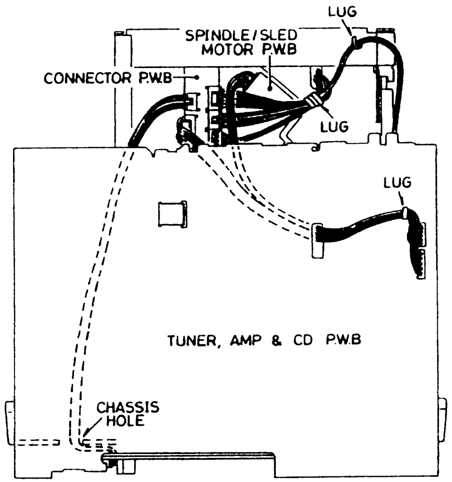
TYPE	1	2
CHASSIS (618) MARK	B	C
UP/DOWN MOTOR ASSY (624) (PART No.)	 (614 268 2890)	 (614 287 0440)

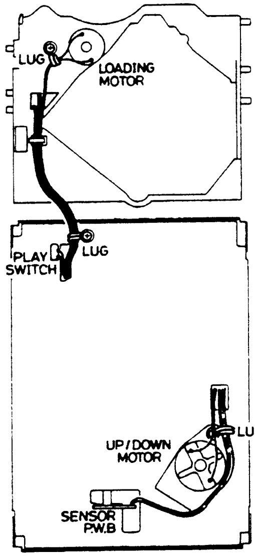
CD MECHANISM ADJUSTMENTS

a. REPLACEMENT AND LUBRICATION OF THE CD MECHANISM

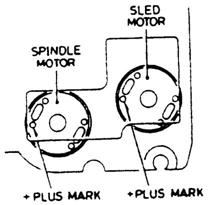
Note :

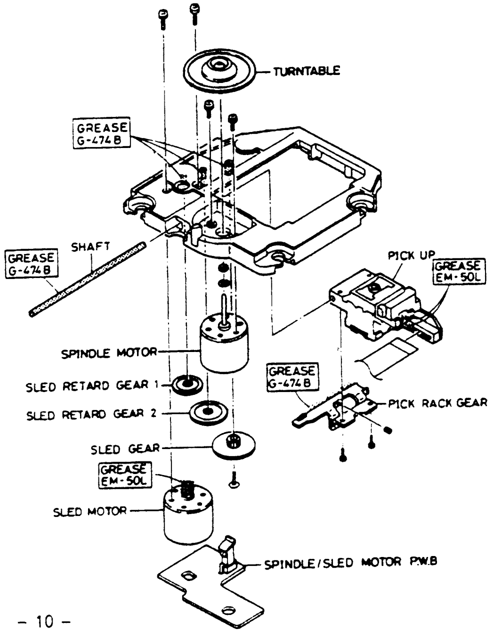
EM-50L	MOLYKOTE, EM-50L
SG-7	SAN GREASE, SG-7
G-474B	FLOIL OIL, G-474B


LUG
SPINDLE/SLED MOTOR P.W.B
CONNECTOR P.W.B
LUG
LUG
TUNER, AMP & CD P.W.B
CHASSIS HOLE


LUG
LOADING MOTOR
PLAY SWITCH
LUG
UP/DOWN MOTOR
LUG
SENSOR P.W.B

b. CD BASE MECHANISM


SLED MOTOR
SPINDLE MOTOR
+PLUS MARK
+PLUS MARK


TURNTABLE
GREASE G-474B
SHAFT
GREASE G-474B
PICK UP
GREASE EM-50L
SPINDLE MOTOR
GREASE G-474B
SLED RETARD GEAR 1
SLED RETARD GEAR 2
PICK RACK GEAR
SLED GEAR
GREASE EM-50L
SLED MOTOR
SPINDLE/SLED MOTOR P.W.B

c. CD MECHANISM

(a) Replacement of the spindle motor

- First, prepare the new turntable (701-1) and new special washer (701-4,701-5) for replacement.
  The removed turntable will be deformed by the heat of the soldering iron, and cannot be reused.
- Prepare dial-type calipers.

(1) The attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the upper part of the turntable for about one minute.

(2) The turntable can then be removed from the shaft by very carefully applying force upward at the center of the lower surface of the turntable.

(3) Remove the two screws (701-2) and remove the spindle motor (701-6).

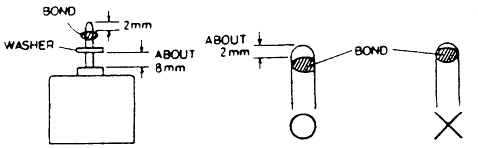
(4) Attach the special washer (701-4, 701-5) to the spindle motor.

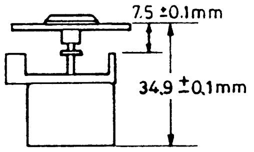
(5) Clean the spindle motor's shaft.
To clean them, use a soft cloth soaked in isopropyl alcohol.

(6) Apply a small amount of a mixture of the **"Three Bond 2001"** and **"2015F"** bonding materials to the motor's shaft.

(7) Install the turntable as shown in the figure.

(8) Secure the turntable by pressing gently.
Be sure to wipe away (by using a piece of cloth, or similar material) any bonding material coming out of the hole.





(b) Replacing the pick-up

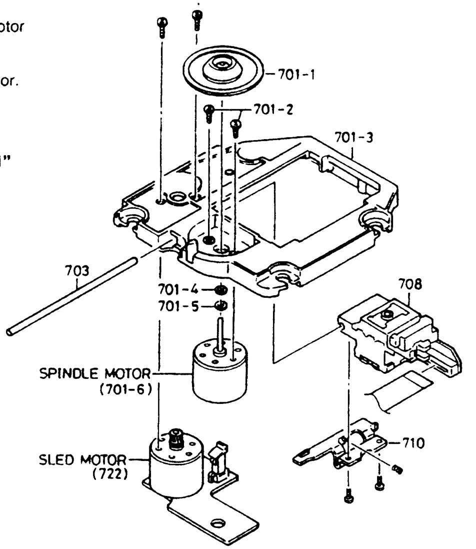
(1) Insert the pick-up rail (703) into the base chassis. (701-3)

(2) If the lach of the base chassis (701-3) are missing when the pick-up rails have been installed, first wipe the tips of the rail with alcohol.

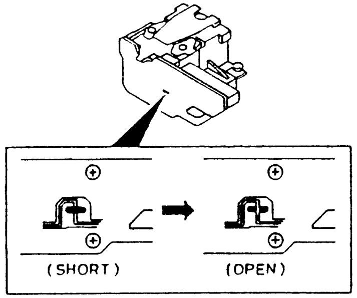
(3) After the pick-up has been replaced, apply grease **(FLOIL G-474B)** to the ▨ sections.

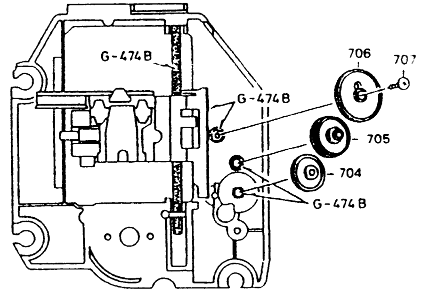
(4) The pick-up P.W.Board pattern is **"shorted"**, as shown in the figure, so that the new pick-up will not be susceptible to the effects of static.

(5) Set the pattern to **"open"** after the pick-up has been replaced.

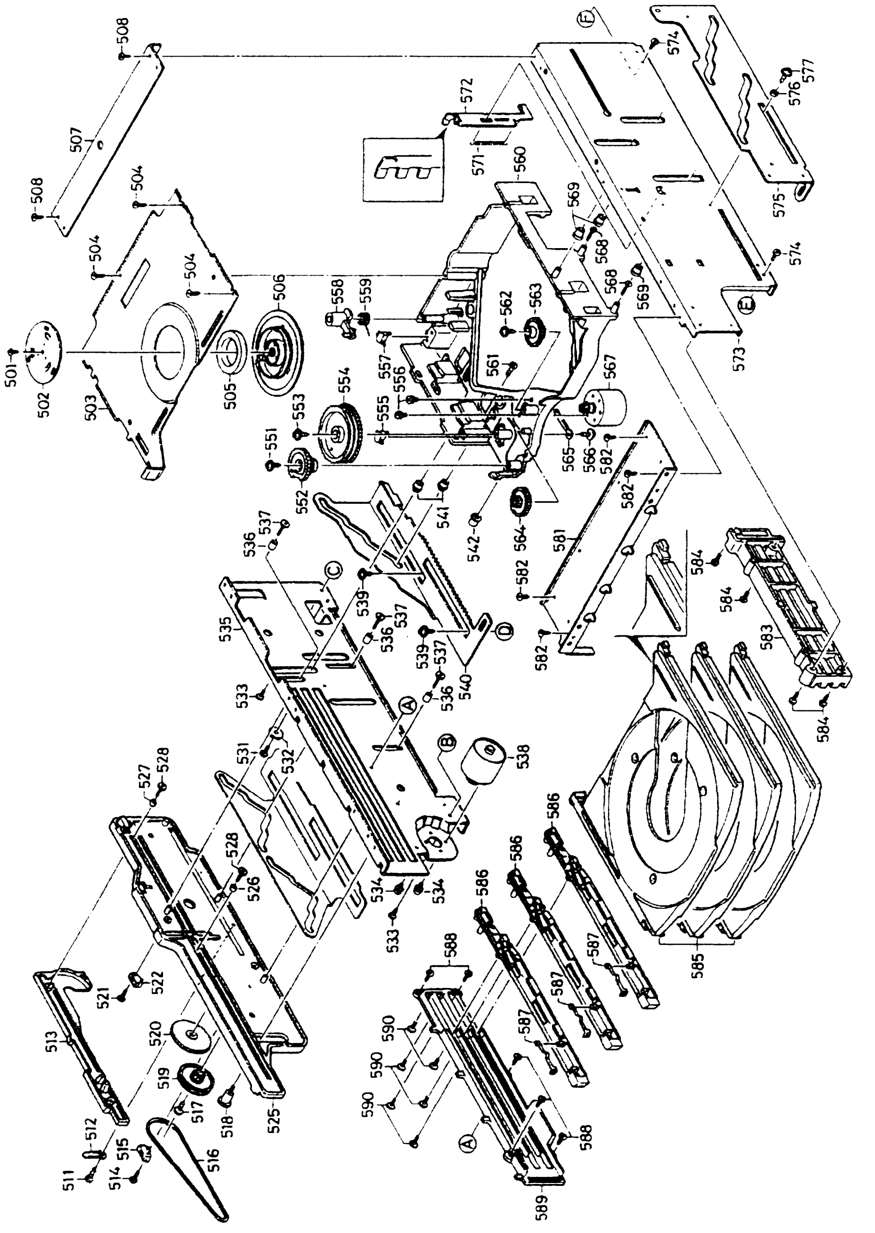


(BE SURE AT THIS TIME, NOT TO TOUCH ANY OTHER PART.)





EXPLODED VIEW (CD CHANGER MECHANISM)

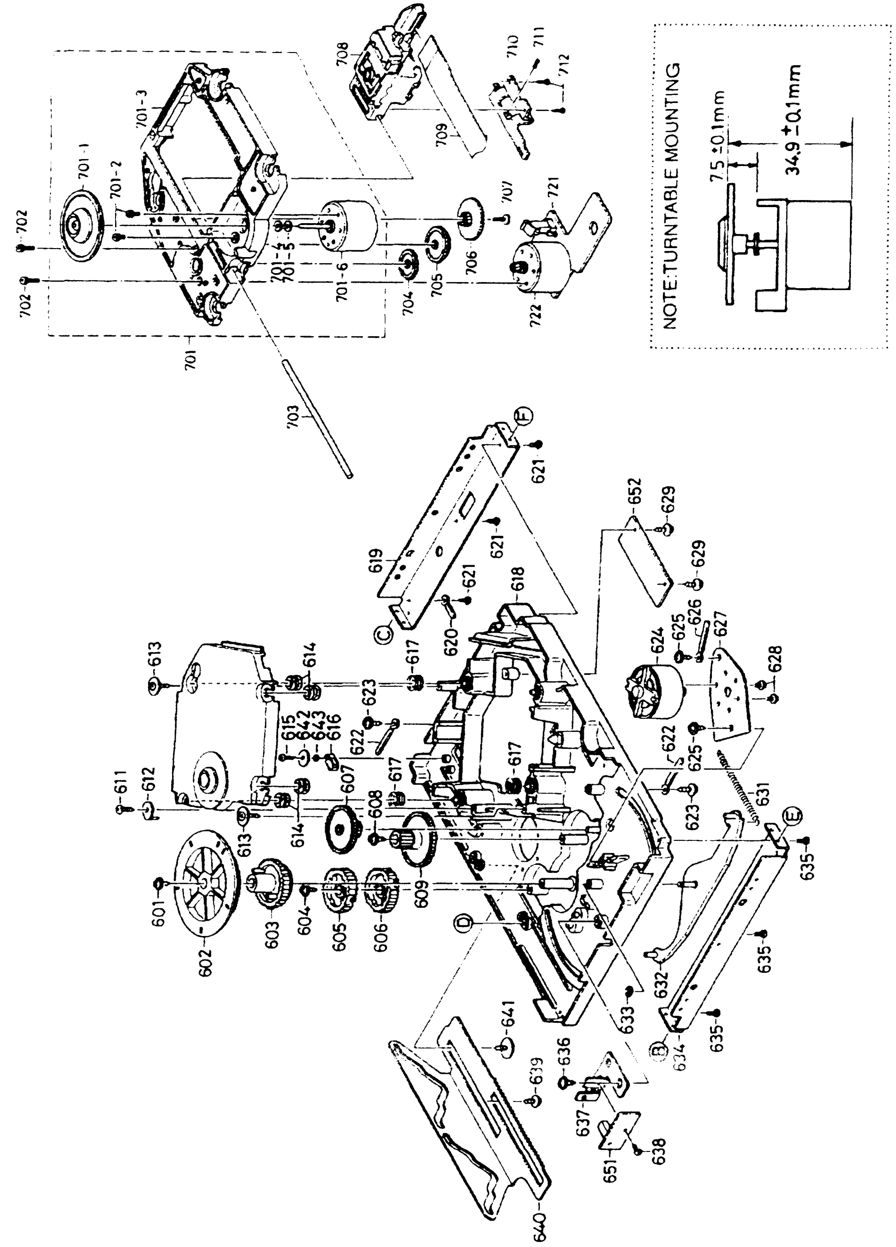


PARTS LIST

CD CHANGER MECHANISM (PM-CD96CHN1/SH)

Ref. No.	Part No.	Description
501	411 022 7500	SCR S-TPG PAN 2X4MM, CHUCK PULLEY FIX
502	614 266 8061	HOLDER.CHUCK PLATE PULLEY
503	614 286 3329	HOLDER.CHUCK BRACKET
504	411 022 7807	SCR S-TPG PAN 2X6MM, CHUCK BRACKET FIX
505	645 009 9809	MAGNET CHUCK,CHUCKING
506	614 272 1674	ASSY.PULLEY,CHUCK
507	614 266 1918	JOINT.B-TOP ENCOURAGER
508	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
511	411 021 0809	SCR S-TPG BIN 2X6MM,LUG FIX
512	614 129 9341	LUG,OPEN/CLOSE SWITCH LOAD
513	614 266 1833	GEAR,OPEN/CLOSE RACK
514	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
515	645 010 6491	SWITCH.LEVER,OPEN END
516	614 277 6896	BELT.SQUARE,OPEN/CLOSE
517	411 021 2704	SCR S-TPG BIN 2.6X6MM, PULLEY FIX
518	412 004 5705	SPECIAL SCREW,GEAR BLOCK FIX
519	614 277 7312	PULLEY,OPEN/CLOSE IDLER PULLEY
520	614 266 1826	GEAR,OPEN/CLODE IDLER
521	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
522	645 010 6491	SWITCH,LEVER,CLOSE END
525	614 266 1970	MOUNTING.GEAR BLOCK BRACKET
526	614 273 5992	PIPE,GEAR RACK GUIDE(F)
527	614 270 2222	PIPE,GEAR RACK GUIDE(R)
528	412 054 6202	SPECIAL SCREW,2X7.5MM, GEAR RACK FIX
531	411 022 7807	SCR S-TPG PAN 2X6MM, TRAY HOLDER
532	411 091 9702	WASHER V 2X8X0.5MM
533	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
534	411 044 7007	SCR PAN+SW 2X3MM, OPEN/CLOSE MOTOR FIX
535	614 266 1949	MOUNTING,LEFT SIDE BRACKET
536	614 268 0476	PIPE,OPEN/CLOSE BRAKET GUIDE
537	412 054 6202	SPECIAL SCREW,2X7.5MM, MOUNTING FIX
538	645 009 1186	ASSY,MOTOR,OPEN/COLSE
539	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,SLIDE FIX
540	614 266 1994	SLIDE,TRAY HOLDER
541	614 277 9460	PIPE,TRAY HOLDER GUIDE
542	614 268 0469	PIPE,TRAY HOLDER GUIDE (R)
551	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
562	614 266 1819	GEAR,LOAD/UNLOAD DRIVE
553	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
554	614 266 1802	GEAR,LOAD/UNLOAD CAM
555	645 012 5904	SWITCH,UNLOAD END
556	411 044 7205	SCR PAN+SW 2X4MM, LOAD/UNLOAD MTR FIX
557	645 012 5904	SWITCH,LOAD END
558	614 266 1932	LEVER,LOCK
559	614 268 0186	SPRING,WIRE, LOAD/UN-LOAD LOCK LEVER
560	614 266 1963	MOUNTING,TRAY HOLDER
561	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
562	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
563	614 266 8030	GEAR,LOAD/UNLOAD IDLER1
564	614 266 1796	GEAR,LOAD/UNLOAD IDLER2
565	614 129 9136	LUG,LEAD MTG.
566	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
567	645 009 1193	ASSY,MOTOR,LOAD/UNLOAD
568	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
569	614 268 0469	PIPE,TRAY HOLDER GUIDE
571	614 268 0162	SPRING,TENSION,STOPPER PULL
572	614 279 0595	STOPPER,DISC STOPPER
573	614 266 1956	MOUNTING,RIGHT SIDE BRAKET
574	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
575	614 268 2906	ASSY,SLIDE,RIGHT
576	614 270 2239	PIPE,RIGHT SLIDE GUIDE
577	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, RIGHT SLIDE FIX
581	614 266 1901	JOINT,F-TOP ENCOURAGER
582	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
583	614 286 3343	HOLDER,RIGHT,TRAY GUIDE
584	411 028 3100	SCR S-TPG PAN 2X6MM, HOLDER FIX
585	614 286 3312	ASSY,TRAY
586	614 286 3541	ASSY,HOLDER
587	614 266 8924	SPRING,PLATE,TRAY HOLD
588	411 028 2905	SCR S-TPG PAN 2X4MM, HOLDER FIX
589	614 286 3336	HOLDER,LEFT,TRAY GUIDE
590	412 055 5303	SPECIAL SCREW 2X5MM, HOLDER FIX
601	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
602	614 266 1758	GEAR,UP/DOWN CAM (1)
603	614 266 1765	GEAR,UP/DOWN CAM (2)
604	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
605	614 266 1772	GEAR,UP/DOWN DRIVE (1)
606	614 266 1789	GEAR,UP/DOWN DRIVE (2)
607	614 266 1734	GEAR,UP/DOWN IDLER 1
608	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
609	614 266 1741	GEAR,UP/DOWN IDLER 2
611	411 020 9902	SCR S-TPG BRZ+FLG 3X8MM,HOLDER FIX
612	614 267 6998	HOLDER,BASE MECHANISM FIX
613	614 279 1202	SPECIAL SCREW,BLACK, BASE MECHANISM FIX
614	614 237 7031	CUSHION,RUBBER,FLOATING
or	614 277 1952	CUSHION,RUBBER,FLOATING
615	411 132 4703	SCR S-TPG BIN 2X10MM, PLAY SW FIX
616	645 010 6491	SWITCH,LEVER,PLAY
617	614 247 4907	SPRING,COMP,FLOATING
618	614 266 1727	CHASSIS,BOTTOM CHASSIS
619	614 266 1888	JOINT,BOTTOM BACK
620	614 129 9341	LUG,OPEN/CLOSE SWITCH LEAD
621	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
622	614 129 9136	LUG,LOAD/UN-LOAD SWITCH LEAD
623	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX

EXPLODED VIEW (CD CHANGER & BASE MECHANISM)



PARTS LIST

Ref. No.	Part No.	Description
624	614 268 2890	ASSY,MOTOR,UP/DOWN CHASSIS MARK "B" (A PAIR USE)
624	614 287 0440	ASSY,MOTOR,UP/DOWN CHASSIS MARK "C" (A PAIR USE)
625	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, BRACKET MOTOR FIX
626	614 129 9136	LUG,SENSOR LEAD
627	614 266 8054	HOLDER,BRACKET MOTOR
628	411 102 6300	SCR PAN-FLG 2.6X2.8MM, UP/DOUN MOTOR FIX
629	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,CHUKEI PWB FIX
631	614 268 0155	SPRING,TENSION, SYNCRO LEVER PULL
632	614 268 2883	ASSY,LEVER,SYNCRO
633	412 014 6402	SPECIAL WASHER, LEVER ASSY FIX
634	614 272 6600	JOINT,BOTTOM FRONT
635	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
636	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SENSOR BK FIX
637	614 266 9907	HOLDER,SENSOR BRACKET
638	411 028 2905	SCR S-TPG PAN 2X4MM, SENSOR PWB FIX
639	411 020 9902	SCR S-TPG BRZ+FLG 3X8MM, SLIDE FIX
640	614 266 2007	SLIDE,TRAY SLISE
641	412 005 2307	SPECIAL SCREW,3X10MM (WITH WASHER 3X14X1MM)
642	614 126 8774	WASHER,FIBER 2X10X1MM PLASY SWITCH
643	412 012 7104	SPECIAL WASHER,GF NYLON 2.1X4X0.5MM
	614 269 6026	ASSY,WIRE,5P,SENSOR, UP/DOWN MOTOR
	614 269 6033	ASSY,WIRE,5P, LOAD/UNLOAD/PLAY SWITCH
	614 269 6040	ASSY,WIRE,4P, LOAD/UNLOAD,UP/DOWN MOTOR
	614 269 6057	ASSY,WIRE,4P, OPEN/CLOSE SWITCH

CD SENSOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
651	614 270 1928	ASSY,PWB,SENSOR
D191	407 177 6109	PHOTO COUPLE GP1A53E

CD CONNECTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
652	614 267 6646	ASSY,PWB CD,CONNECTOR, CHANGER
CN191	645 006 0915	PLUG,4P,LOAD/UNLOAD SWITCH
or	645 009 6440	PLUG,4P,LOAD/UNLOAD SWITCH

Ref. No.	Part No.	Description
CN192	645 004 2706	PLUG,4P,LOAD/UNLOAD,UP/DOWN MOTOR
or	645 014 9825	PLUG,4P,LOAD/UNLOAD,UP/DOWN MOTOR
CN193	645 006 0939	PLUG,6P,OPEN/CLOSE/PLAY SWITCH
or	645 009 6464	PLUG,6P,OPEN/CLOSE/PLAY SWITCH
CN194	645 006 0922	PLUG,5P,SENSOR,UP/DOWN MOTOR
or	645 009 6457	PLUG,5P,SENSOR,UP/DOWN MOTOR
CN195	645 006 0915	PLUG,4P,CD,PWB
or	645 009 6440	PLUG,4P,CD,PWB
CN196	645 006 0953	PLUG,8P,CD,PWB
or	645 009 6488	PLUG,8P,CD,PWB

CD BASE MECHANISM (PM-CDBM94D2SH)

Ref. No.	Part No.	Description
701	614 270 2031	ASSY,CHASSIS,BASE MECHANISM
701-1	614 268 3354	ASSY,TURNTABLE,SPINDLE
701-2	411 044 7502	SCR PAN+SW 2X5MM, SPINDLE MOTOR FIX
701-3	614 262 2582	CHASSIS,BASE MECHANISM
701-4	412 032 0208	SPECIAL WASHER,1.9X5X0.3MM
701-5	412 014 5603	SPECIAL WASHER,TURNTABLE STOPPER
701-6	645 007 7821	MOTOR,CD-SPINDLE DC 0.2W, SPINDLE MOTOR
702	411 044 8004	SCR PAN+SW 2X8MM, SLED MOTOR FIX
703	614 237 7024	SHAFT,PICK-UP RAIL
or	614 277 8029	SHAFT,PICK-UP RAIL
704	614 237 7093	GEAR,SLED RETARD GEAR 1
705	614 237 7109	GEAR,SLED RETARD GEAR 2
706	614 237 7116	GEAR,SLED
707	412 047 3904	SPECIAL SCREW 2X8MM, SLED GEAR FIX
708	645 006 7983	PICKUP,LASER,SF-P100
709	645 009 9960	FLEXIBLE FLAT CABLE,13P, PICK-UP
710	614 262 2599	GEAR,RACK PICK-UP RACK GEAR
711	614 238 6934	SPRING,COMP,PICK-UP RACK GEAR
712	411 152 4301	SCR S-TPG PAN PCS 1.7X6MM, PICK RACK GEAR FIX
722	645 007 7814	ASSY,MOTOR CD-SLED
	614 270 2543	ASSY,CONNECTOR-S,6P, BASE MECHANISM

BASE MECHANISM P.W.BOARD ASSY

Ref. No.	Part No.	Description
721	614 254 0664	ASSY,PWB,MOTOR & LIMIT SWITCH
CN001	645 006 0939	PLUG,6P
S001	645 012 5836	SWITCH,LEAF,LIMIT SWITCH
or	645 019 2661	SWITCH,LEAF,LIMIT SWITCH

Jul.'96/3000 KM Printed in Japan

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

Notice

SANYO

☑ CORRECTION ☐ PRODUCTION CHANGE

☐ SERVICE FLASH ☐ ADD INFORMATION

☐ ☐

FILE NO.

Please add this notice to the Service Manual listed below.

Category : Mini Component System **Date :** Jan. 1997

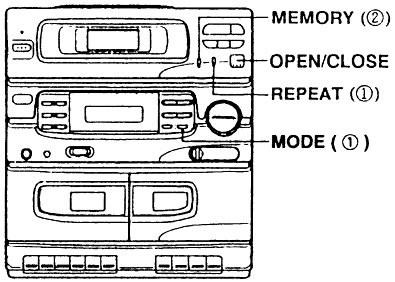
Model : DC-D9

Destination : UK / XE **Reference No. :** SM580605 **Issue Number :** 8

Product Code : 129 472 02 (UK)
129 472 03 (XE)

The following items were misprinted.
Please make the necessary revisions as indicated in the Service Manuals listed above.

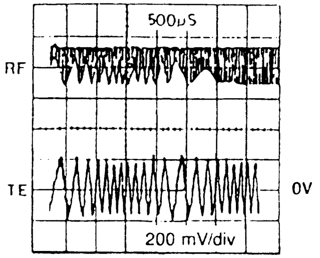
Page : 12
Section : **CD PLAYER ADJUSTMENTS**
Description : pressing **BAND** & REPEAT switches (cancel)
pressing **MODE** & REPEAT switches (additional)



(a) Tracking balance adjustment

(1) Within one second after pressing **MODE** & **REPEAT** switches at the same time, press the **MEMORY** switch. (①,②)
(**Service mode : TRACKING BALANCE**)

(2) Connect an oscilloscope to TP 3 (TE) and TP 4 (VC).
(3) Set the test disc. (DISC 1)
(4) PLAY / PAUSE switch push "ON".
(5) Adjust **VR101** so that the osilloscope's waveform is symmetrical, as shown in the illustration.
(6) To cancel service mode, disconnect the power cord's plug from the electrical outlet.



SANYO Electric Co., Ltd
Osaka, Japan

CONTENTS

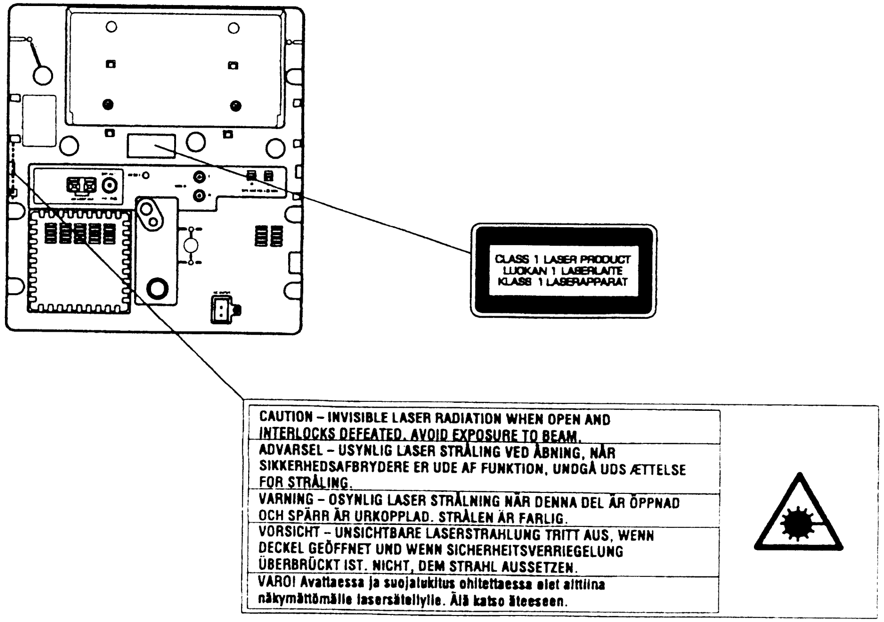
SPECIFICATIONS .... TOP
LASER BEAM SAFETY PRECAUTIONS . 1
WHAT TO DO IF 2
REMOVAL AND INSTALLATION 2
CD CHANGER OPERATION
DESCRIPTION 4
CD MECHANISM ADJUSTMENTS 7
CD PLAYER ADJUSTMENTS 11
TAPE DECK ADJUSTMENTS 13
TUNER ADJUSTMENTS 15
FERRITE CORE MOUNTING 16
EXPLODED VIEW 17
PARTS LIST 18
IC BLOCK DIAGRAM &
DESCRIPTION 30
SCHEMATIC DIAGRAM 32
WIRING DIAGRAM 34
IC & TRANSISTOR VOLTAGES 60
NOTES 61

LASER BEAM SAFETY PRECAUTIONS

- Pick-up that emits a laser beam is used in this CD player.

CAUTION :
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

LASER OUTPUT ..... 0.6 mW Max. (CW)
WAVELENGTH ...... 790 nm



CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE FOR STRÅLING.

VARNING – OSYNLIG LASER STRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.

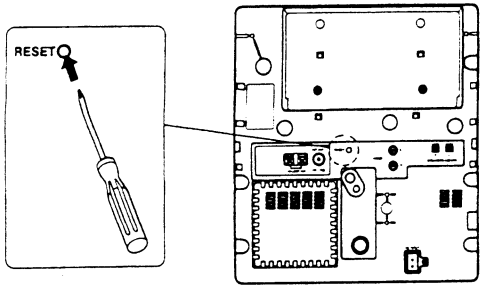
VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.

VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

WHAT TO DO IF

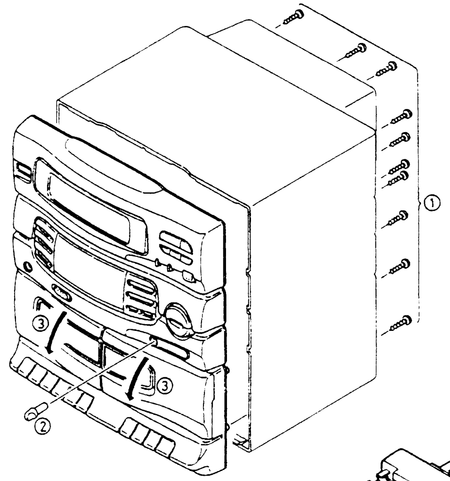
If the operation of the unit or display is not normal, or you wish to clear the contents of the memory.

1. Disconnect the power cord's plug from the electrical outlet.
2. Press the **RESET** button for at least **20** seconds.
3. Connect the power cord.
4. Press the **POWER** button to turn the power on.



REMOVAL AND INSTALLATION

- Disconnect the power cord's plug from the electrical outlet.
- All wiring should be returned to the original position after work is completed.
- First have ready many the new FIXERS (614 129 2496) for replacement.
- Arrange the lead wires so that they are not near the heat sink.

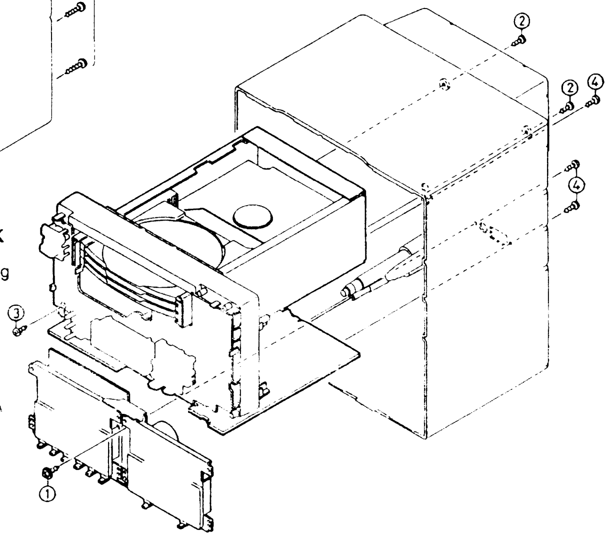


a. CABINET

(1) Remove the 10 rear panel mounting screws. (①)
(2) Remove the BALANCE knob. (②)
(3) Press the STOP/EJECT Button.
(4) Open the cassette compartment lid. (③)

b. TAPE AND CD MECHANISM BLOCK

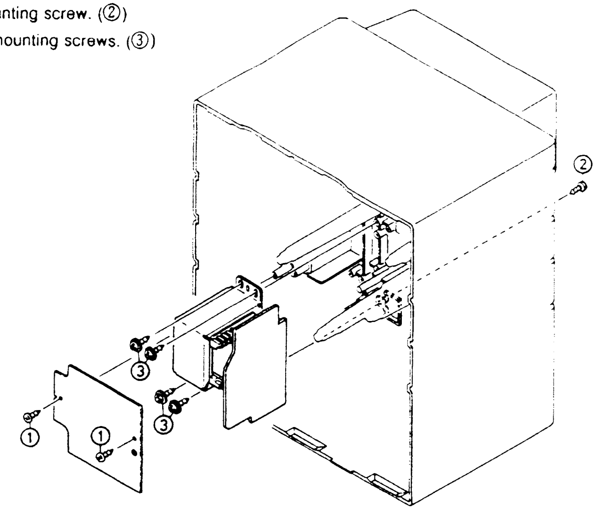
(1) Remove the TAPE MECHANISM mounting screw. (①)
(2) Remove the 2 CD MECHANISM mounting screws. (②)
(3) Remove the chassis mounting screw. (③)
(4) Remove the VIDEO socket and ANTENNA TERMINAL mounting screws. (④)



REMOVAL AND INSTALLATION

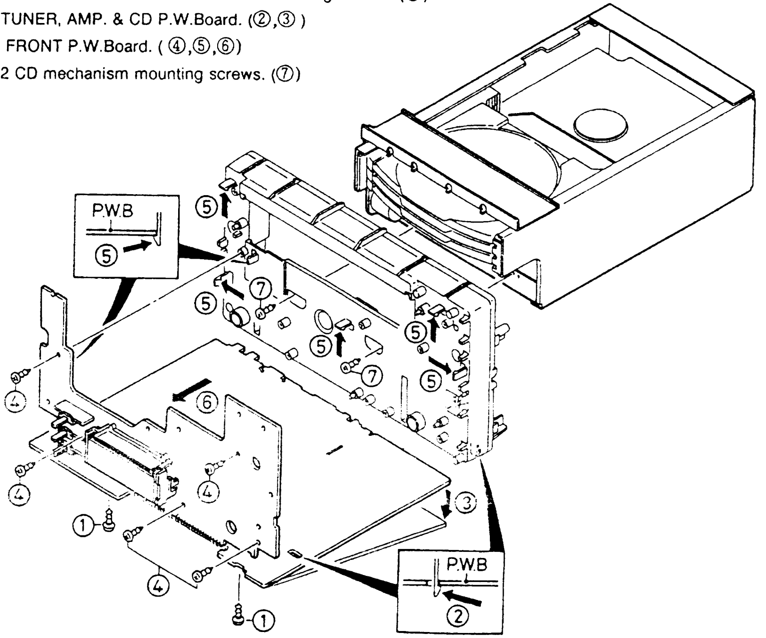
c. POWER TRANSFORMER

(1) Removal the 2 shield cover mounting screws. (①)
(2) Removal the AC power socket mounting screw. (②)
(3) Remove the 4 power transformer mounting screws. (③)



d. CHASSIS

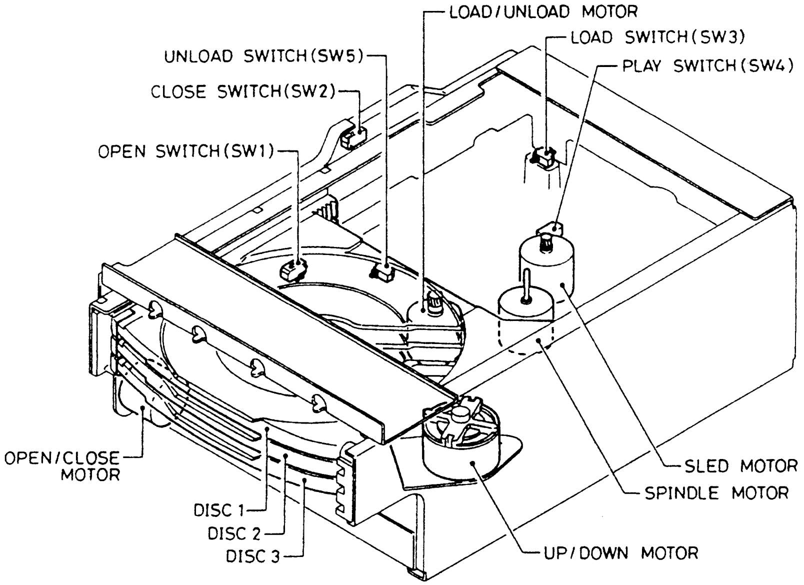
(1) Removal the 2 TUNER, AMP. & CD P.W.Board mounting screws. (①)
(2) Removal the TUNER, AMP. & CD P.W.Board. (②,③)
(3) Removal the FRONT P.W.Board. (④,⑤,⑥)
(4) Removal the 2 CD mechanism mounting screws. (⑦)

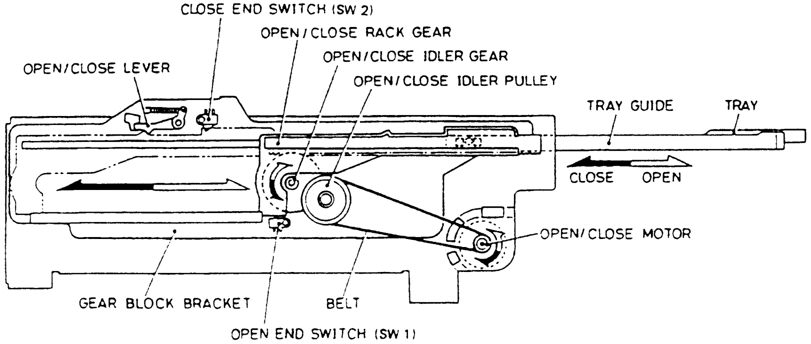


CD CHANGER OPERATION DESCRIPTION

- This set is capable of stocking and playing up to 3 CDs.
- While playing a CD, other discs can be replaced.
  In this case, press the button for the disc No. you wish to remove, and then press the OPEN/CLOSE button.
- When the "POWER" button is turned off, the power turns off after the discs are loaded in the disc trays.

a. MOTOR & MECHANISM SWITCHES LAYOUT


LOAD/UNLOAD MOTOR
LOAD SWITCH(SW3)
UNLOAD SWITCH(SW5)
PLAY SWITCH(SW4)
CLOSE SWITCH(SW2)
OPEN SWITCH(SW1)
OPEN/CLOSE MOTOR
SLED MOTOR
SPINDLE MOTOR
DISC 1
DISC 2
DISC 3
UP/DOWN MOTOR

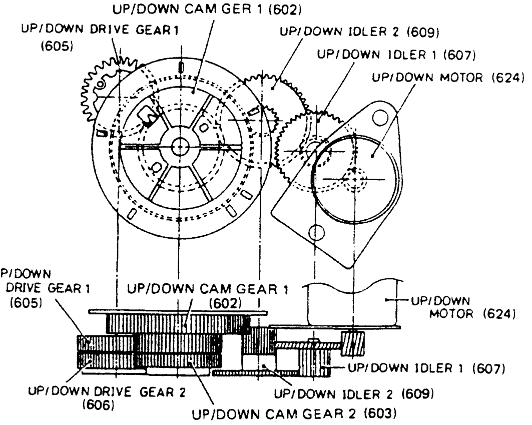

CLOSE END SWITCH (SW 2)
OPEN/CLOSE RACK GEAR
OPEN/CLOSE IDLER GEAR
OPEN/CLOSE LEVER
OPEN/CLOSE IDLER PULLEY
TRAY GUIDE
TRAY
CLOSE
OPEN
OPEN/CLOSE MOTOR
GEAR BLOCK BRACKET
BELT
OPEN END SWITCH (SW 1)

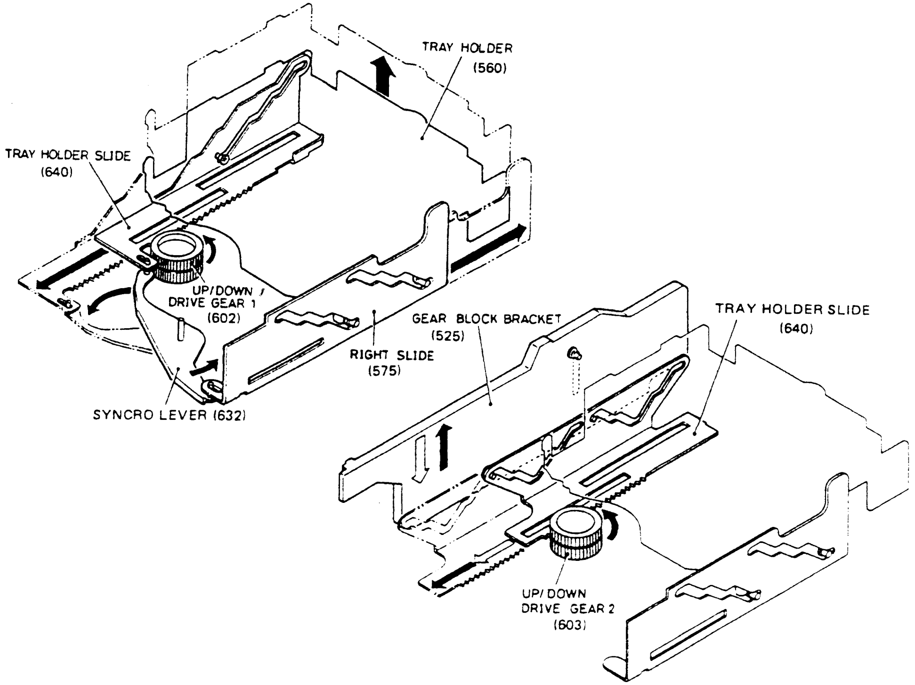
CD CHANGER OPERATION DESCRIPTION

b. UP/DOWN FUNCTION (DURING "UP")

(1) The rotation of the UP/DOWN MOTOR (624) rotates the UP/DOWN DRIVE GEAR (605) in the counter-clockwise direction.

(2) In connection with this, the TRAY HOLDER SLIDE (640) moves forward, and at the same time, the RIGHT SLIDE (575) is moved backwards by the SYNCRO LEVER (632).


UP/DOWN CAM GER 1 (602)
UP/DOWN DRIVE GEAR1 (605)
UP/DOWN IDLER 2 (609)
UP/DOWN IDLER 1 (607)
UP/DOWN MOTOR (624)
UP/DOWN DRIVE GEAR 1 (605)
UP/DOWN CAM GEAR 1 (602)
UP/DOWN MOTOR (624)
UP/DOWN IDLER 1 (607)
UP/DOWN DRIVE GEAR 2 (606)
UP/DOWN IDLER 2 (609)
UP/DOWN CAM GEAR 2 (603)


TRAY HOLDER (560)
TRAY HOLDER SLIDE (640)
UP/DOWN / DRIVE GEAR 1 (602)
GEAR BLOCK BRACKET (525)
TRAY HOLDER SLIDE (640)
RIGHT SLIDE (575)
SYNCRO LEVER (632)
UP/DOWN DRIVE GEAR 2 (603)

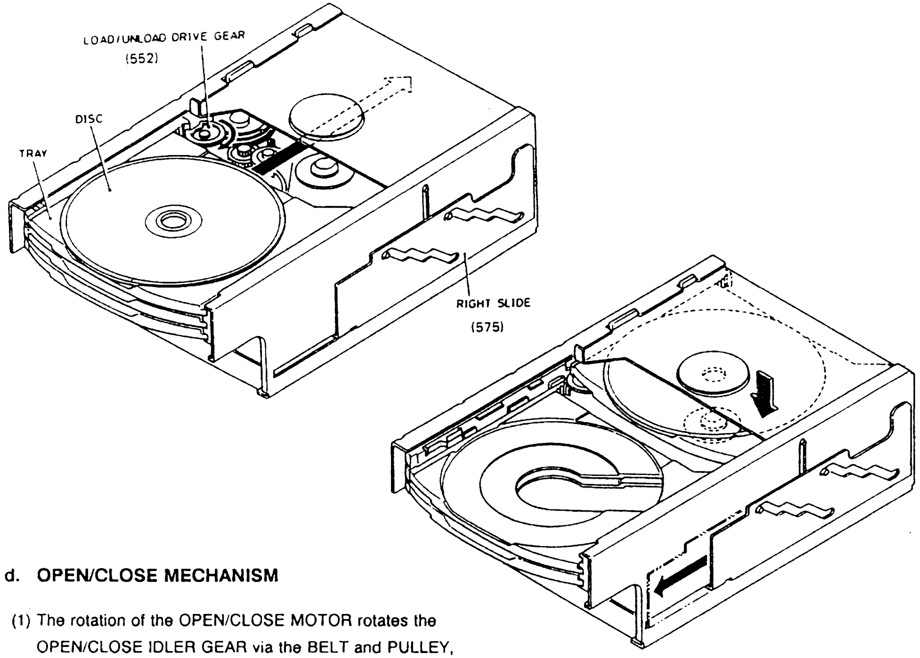
CD CHANGER OPERATION DESCRIPTION

c. LOAD/UNLOAD FUNCTION

(1) The rotation of the LOAD/UNLOAD MOTOR rotates the LOAD/UNLOAD DRIVE GEAR (552) in the clockwise direction.

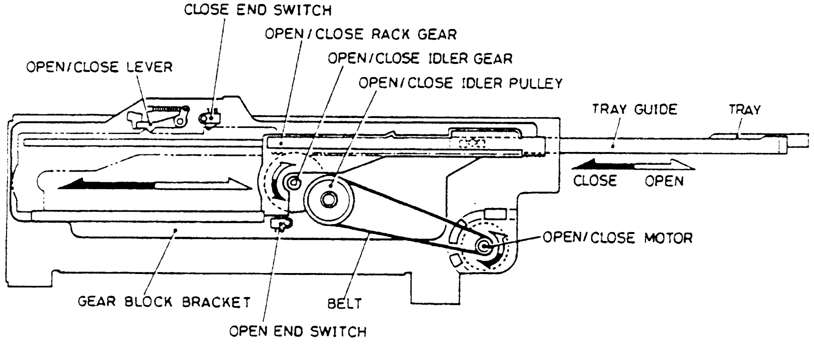
(2) The DRIVE GEAR and the gear portion of the TRAY mesh together and the TRAY moves backwards.

(3) The completion of TRAY movement causes the UP/DOWN MOTOR to operate and lower the TRAY HOLDER, putting the unit to chucking stayus.


LOAD/UNLOAD DRIVE GEAR
(552)
DISC
TRAY
RIGHT SLIDE
(575)

d. OPEN/CLOSE MECHANISM

(1) The rotation of the OPEN/CLOSE MOTOR rotates the OPEN/CLOSE IDLER GEAR via the BELT and PULLEY, and the RACK GEAR whitch is intermeshed with the OPEN/CLOSE IDLER GEAR moves forward during "OPEN", backwards during "CLOSE".

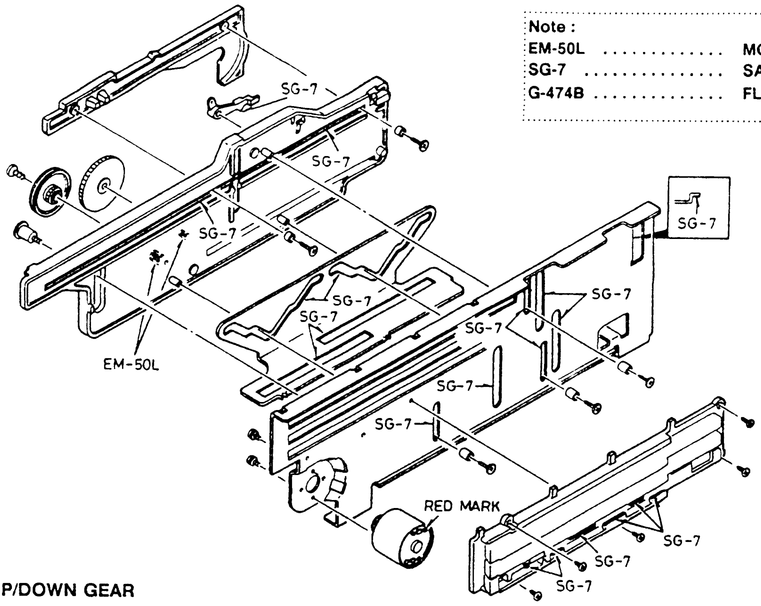

CLOSE END SWITCH
OPEN/CLOSE RACK GEAR
OPEN/CLOSE IDLER GEAR
OPEN/CLOSE LEVER
OPEN/CLOSE IDLER PULLEY
TRAY GUIDE
TRAY
CLOSE
OPEN
OPEN/CLOSE MOTOR
GEAR BLOCK BRACKET
BELT
OPEN END SWITCH

CD MECHANISM ADJUSTMENTS

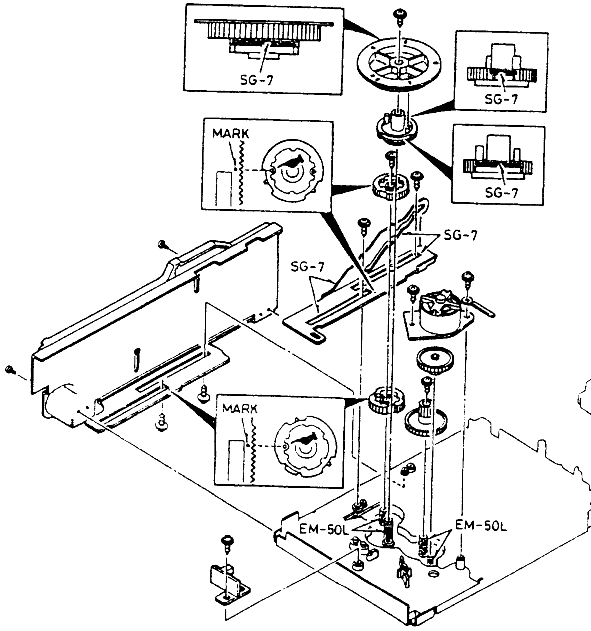
a. CD CHANGER MECHANISM AND OPEN/CLOSE MOTOR

Note :

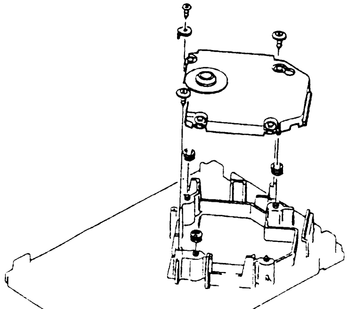
EM-50L	MOLYKOTE, EM-50L
SG-7	SAN GREASE, SG-7
G-474B	FLOIL OIL, G-474B


SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
SG-7
EM-50L
RED MARK
SG-7
SG-7
SG-7

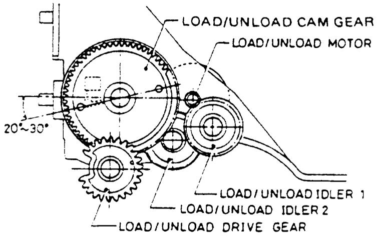
b. UP/DOWN GEAR

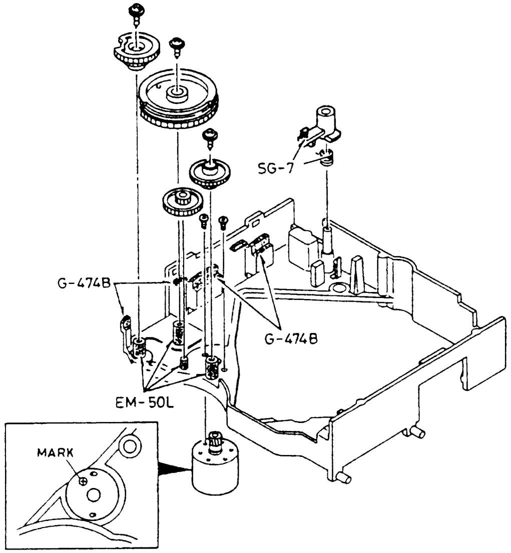

SG-7
SG-7
SG-7
MARK
SG-7
SG-7
MARK
EM-50L
EM-50L

c. CD MECHANISM BLOCK

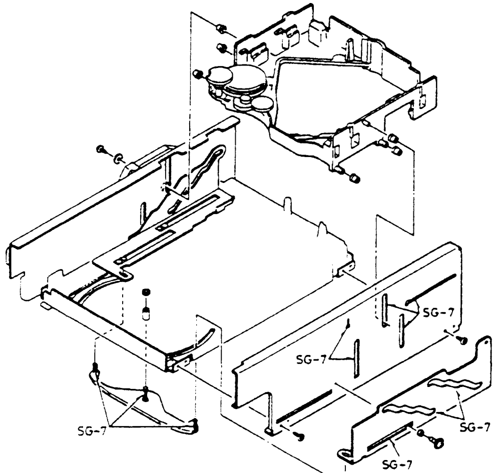


d. LOAD/UNLOAD MOTOR

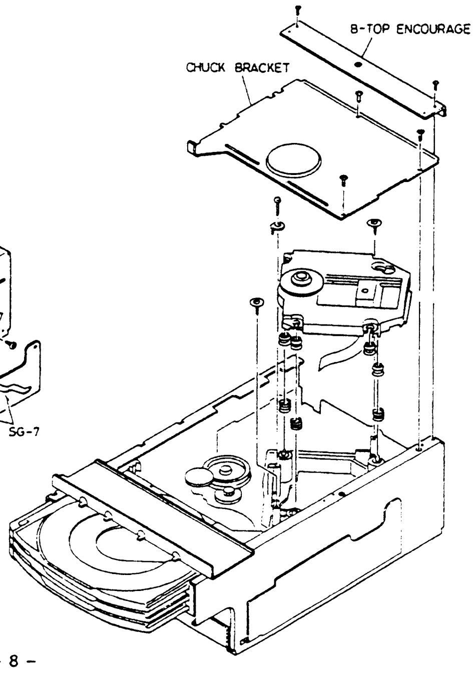

LOAD/UNLOAD CAM GEAR
LOAD/UNLOAD MOTOR
20~30°
LOAD/UNLOAD IDLER 1
LOAD/UNLOAD IDLER 2
LOAD/UNLOAD DRIVE GEAR


SG-7
G-474B
G-474B
EM-50L
MARK

e. TRAY HOLDER


SG-7
SG-7
SG-7
SG-7
SG-7

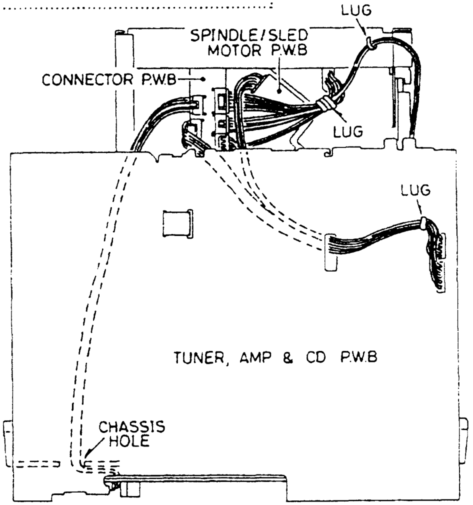
f. CD MECHANISM BLOCK

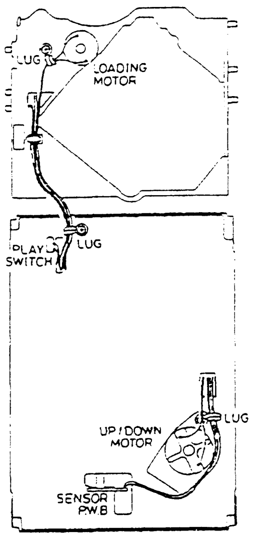

B-TOP ENCOURAGE
CHUCK BRACKET

g. REPLACEMENT AND LUBRICATION OF THE CD MECHANISM

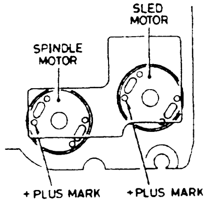
Note :

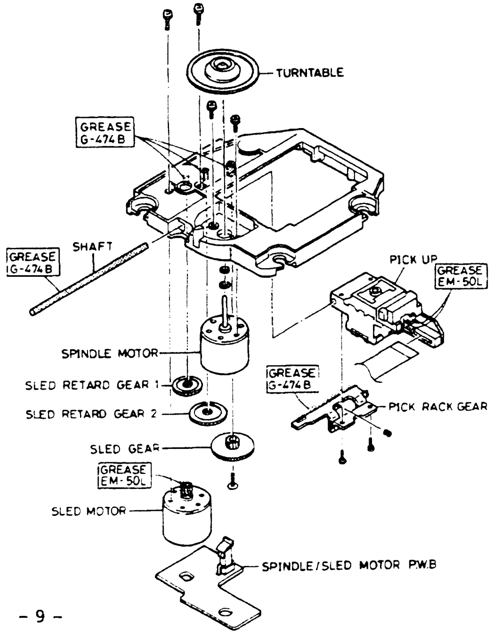
EM-50L	**MOLYKOTE, EM-50L**
SG-7	**SAN GREASE, SG-7**
G-474B	**FLOIL OIL, G-474B**


LUG
SPINDLE/SLED MOTOR P.W.B
CONNECTOR P.W.B
LUG
LUG
TUNER, AMP & CD P.W.B
CHASSIS HOLE


LUG
LOADING MOTOR
PLAY SWITCH
LUG
LUG
UP/DOWN MOTOR
SENSOR P.W.B

h. CD BASE MECHANISM

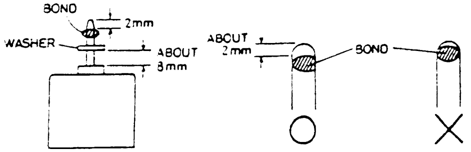

SLED MOTOR
SPINDLE MOTOR
+PLUS MARK
+PLUS MARK


TURNTABLE
GREASE G-474B
SHAFT
GREASE G-474B
PICK UP
GREASE EM-50L
SPINDLE MOTOR
GREASE G-474B
SLED RETARD GEAR 1
SLED RETARD GEAR 2
PICK RACK GEAR
SLED GEAR
GREASE EM-50L
SLED MOTOR
SPINDLE/SLED MOTOR P.W.B

CD MECHANISM ADJUSTMENTS

i. CD MECHANISM

(a) Replacement of the spindle motor


BOND
2mm
WASHER
ABOUT 3mm
ABOUT 2mm
BOND
○
X

- First, prepare the new turntable (701-1) and new special washer (701-4,701-5) for replacement.
  The removed turntable will be deformed by the heat of the soldering iron, and cannot be reused.
- Prepare dial-type calipers.

(1) The attached bonding material can be dissolved by using a 60W soldering iron to heat the shaft at the upper part of the turntable for about one minute.

(2) The turntable can then be removed from the shaft by very carefully applying force upward at the center of the lower surface of the turntable.

(3) Remove the two screws (701-2) and remove the spindle motor (701-6).

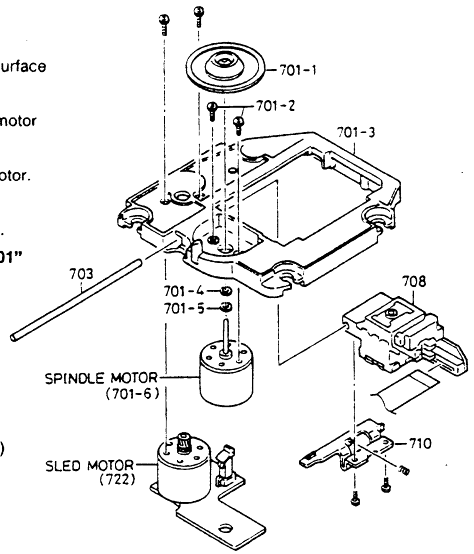
(4) Attach the special washer (701-4, 701-5) to the spindle motor.

(5) Clean the spindle motor's shaft.
To clean them, use a soft cloth soaked in isopropyl alcohol.

(6) Apply a small amount of a mixture of the **"Three Bond 2001"** and **"2015F"** bonding materials to the motor's shaft.

(7) Install the turntable as shown in the figure.

(8) Secure the turntable by pressing gently.
Be sure to wipe away (by using a piece of cloth, or similar material) any bonding material coming out of the hole.


701-1
701-2
701-3
703
701-4
701-5
708
SPINDLE MOTOR (701-6)
SLED MOTOR (722)
710

(b) Replacing the pick-up

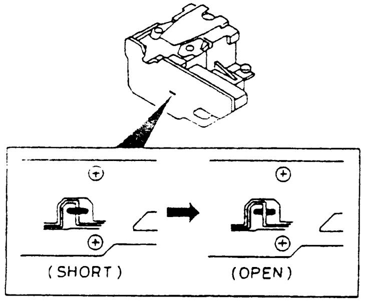
(1) Insert the pick-up rail (703) into the base chassis. (701-3)

(2) If the lach of the base chassis (701-3) are missing when the pick-up rails have been installed, first wipe the tips of the rail with alcohol.

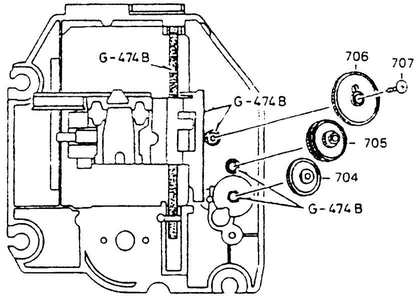
(3) After the pick-up has been replaced, apply grease (**FLOIL G-474B**) to the ▨ sections.

(4) The pick-up P.W.Board pattern is **"shorted"**, as shown in the figure, so that the new pick-up will not be susceptible to the effects of static.

(5) Set the pattern to **"open"** after the pick-up has been replaced.



(BE SURE AT THIS TIME, NOT TO TOUCH ANY OTHER PART.)


G-474B
706
707
G-474B
705
704
G-474B

CD PLAYER ADJUSTMENTS

a. PREPARATIONS

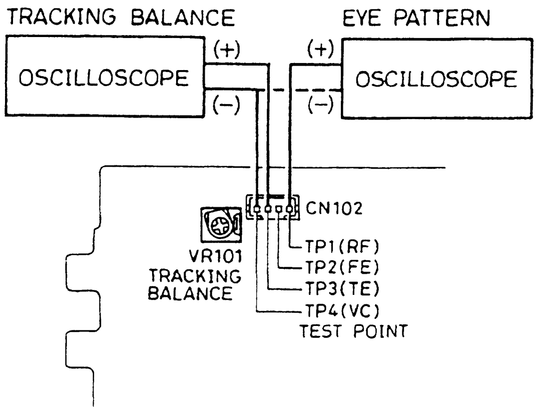
(a) Measuring instruments, tools and filter

(1) Test disc. : YEDS 18 (SONY) or etc.

(2) Oscilloscope : SS5711 (10 MHz or dual-phenomenon)
or Memoryscope : DSS6521 (Storagescope)

(3) Screwdrivers (non-metallic) for adjustments

b. PARTS LOCATION


TRACKING BALANCE
EYE PATTERN
OSCILLOSCOPE
(+)
(−)
OSCILLOSCOPE
(+)
(−)
CN102
VR101
TRACKING
BALANCE
TP1(RF)
TP2(FE)
TP3(TE)
TP4(VC)
TEST POINT

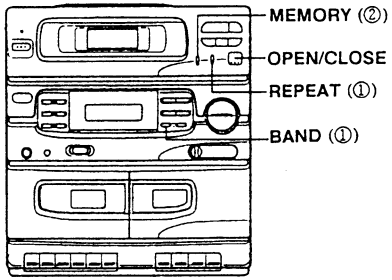
c. ADJUSTMENTS

Adjustment Item	Measuring instrument	Input connection	Output connection	Adjustment location	Adjustment value
(a) Tracking balance	Oscilloscope	—	TP 3 : TE TP 4 : VC	VR101	Waveform symmetry A =B
(b) Checking the "eye" pattern	Oscilloscope	—	TP 1 : RF TP 4 : VC	—	Check be sure that the "eye" pattern is at the center of the waveform and that the diamond shape is clearly defined

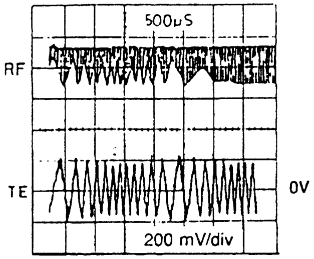
CD PLAYER ADJUSTMENTS

(a) Tracking balance adjustment

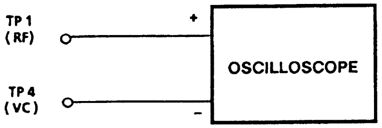
(1) Within one second after pressing **BAND** & **REPEAT** switches at the same time, press the **MEMORY** switch. (①,②)
(**Service mode : TRACKING BALANCE**)



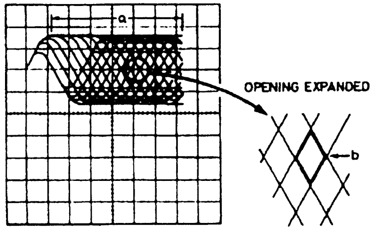
(2) Connect an oscilloscope to TP3 (TE) and TP4 (VC).
(3) Set the test disc. (DISC 1)
(4) PLAY / PAUSE switch push "ON".
(5) Adjust **VR101** so that the oscilloscope's waveform is symmetrical, as shown in the illustration.
(6) To cancel service mode, disconnect the power cord's plug from the electrical outlet.



(b) Checking the "eye" pattern



(1) Switch "ON" the POWER.
(2) Connect an oscilloscope to TP1 (RF) and TP4 (VC).
(3) Load the test disc.
(4) PLAY switch push ON.
(5) Check to be sure that the " eye " pattern is at the center of waveform and that the diamond shape is clearly defined.
(6) Press the STOP button.
(7) Switch "OFF" the **POWER**.

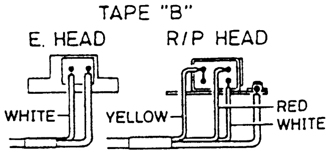


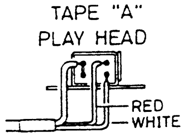
TAPE DECK ADJUSTMENTS

Adjustment Item	Test Tape	Measuring Instrument	Output connection	Adjust location	Adjust value	Note
(a) HEAD AZIMUTH TAPE "B"	VTT738 etc. (10 kHz)	AC-voltmeter	SPEAKER TERMINAL	HEAD AZIMUTH SCREW	Max.	---
(b) HEAD AZIMUTH TAPE "A"	VTT738 etc. (10 kHz)	AC-voltmeter	SPEAKER TERMINAL	HEAD AZIMUTH SCREW	Max.	---
(c) MOTOR SPEED (NORMAL)	MTT-111 (3,000 Hz)	FREQUENCY COUNTER	SPEAKER TERMINAL	SVR01	3,000 Hz	---

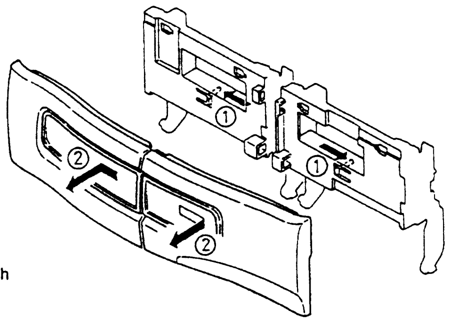
a. HEAD REPLACEMENT AND AZIMUTH ADJUSTMENT

(a) Head replacement





(1) After replacement, demagnetize the heads by using a degausser.
(2) Be sure to clean the heads before attempting to make any adjustments.
(3) Be sure both channels (1 and 2) are the same level (Using a dual-channel oscilloscope).
(4) All wiring should be returned to the original position after work is completed.



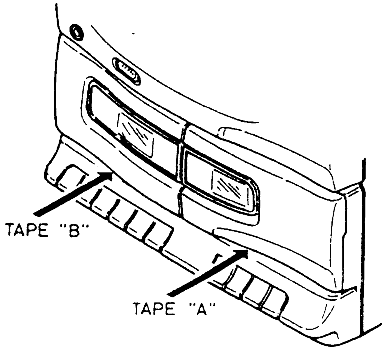
(b) Head azimuth

- **TAPE "A"**

(1) Load a test tape (VTT-738, etc.: 10 kHz) for azimuth adjustment.
(2) Press the PLAY button.
(3) Use a flat-tip (-) screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback.
(4) Press the STOP button.

- **TAPE "B"**

(1) Load a test tape for azimuth adjustment.
(2) Press the PLAY button.
(3) Azimuth screw adjustment.
(4) Press the STOP button.



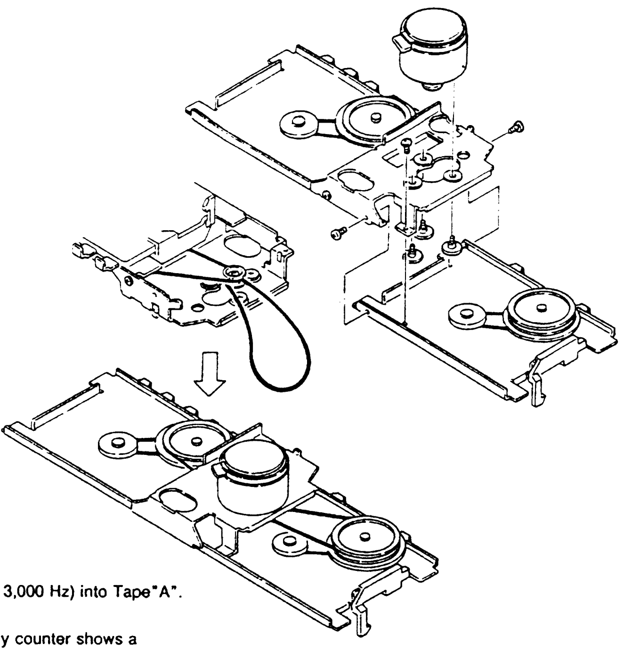
- After making the adjustment, secure the azimuth adjustment screw by applying screw lock (TB-1401B).

TAPE DECK ADJUSTMENTS

b. MOTOR REPLACEMENT AND SPEED ADJUSTMENT

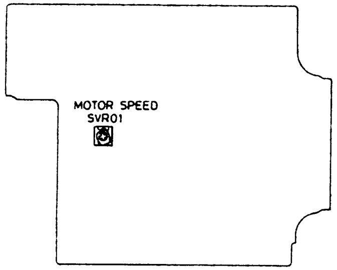
(a) Motor replacement

(1) See illusttation at right.



(b) Motor speed

(1) Insert the test tape (MTT-111, etc. 3,000 Hz) into Tape"A".
(2) Press PLAY button.
(3) Adjust SVR01 so that the frequency counter shows a reading of 3,000Hz.
(4) Press STOP button.



c. CHECKING THE MECHANISM TORQUES

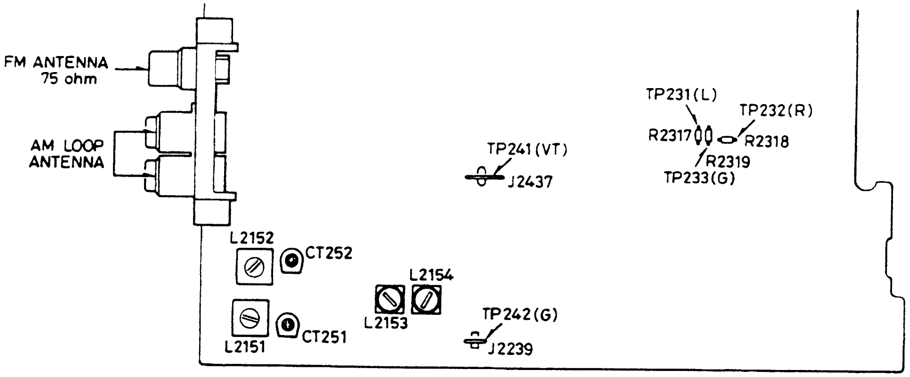
- Clean the head, capstan and pinch roller before making any measurement.

TAPE "A & B"

Measurement	Take-up torque	Back tension	Tape tension
Cassette for measurement	PLAY:TW-2111A F.FWD/REW:TW-2231	PLAY:TW-2111A	Drive-power cassette TW-2412
PLAY	30~ 60 gr.cm	2.0~ 5.0 gr.cm	60 gr or more
F.FWD / REW	55~ 120 gr.cm	—	—

TUNER ADJUSTMENTS

- Use a plastic screw driver for adjustments.
- Speaker impedance : 4 ohm
- Standard Output : 500 mW
- FM MODE switch : STEREO
- TUNING FM : 87.5 - 108.0 MHz (50 kHz step) MW : 522 - 1,611 kHz (9 kHz step) LW : 144 - 288 kHz (9 kHz step)



a. ADJUSTMENTS OF FM BAND

SG RF Level : 75 ohm Voltage dBμV
Antenna : 75 ohm unbalanced direct,
Modulation : 1 kHz, Dev. : ± 22.5 kHz (MONO)

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	—	Connect to Digital DC voltmeter TP 241 (H), TP 242 (G)	87.5 MHz	Low end	—	1.3~1.7V
				108.0 MHz	High end	—	less than 9.0V

b. ADJUSTMENTS OF MW BAND

SG Modulation : 1,000 Hz, 30% IRE Loop Antenna

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	—	Connect to Digital DC voltmeter TP 241 (H), TP 242 (G)	522 kHz	Low end	L2153	1.00 ± 0.05V
				1611 kHz	High end	—	less than 9.0V
2	Tracking	Connect AM SG to Test Loop (SG = 80dBμV)	Connect VTVM TP 231 (H) or TP 232 (H), TP 233 (G)	603 kHz	603 kHz	L2151	Max.
				1404 kHz	1404 kHz	CT251	

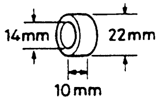
c. ADJUSTMENTS OF LW BAND

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope or DC voltmeter
		Input	Output				
1	Tuning coverage	—	Connect to Digital DC voltmeter TP 241 (H), TP 242 (G)	144 kHz	Low end	L2154	1.30 ± 0.05V
				288 kHz	High end	—	less than 9.0V
2	Tracking	Connect AM SG to Test Loop (SG = 85dBμV)	Connect to VTVM TP 231 (H) or TP 232 (H), TP 233 (G)	162 kHz	162 kHz	L2152	Max.
				279 kHz	279 kHz	CT252	

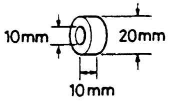
FERRITTE CORE MOUNTING

- All wiring should be returned to the original position after work is completed.
- First have ready many the new FIXERS (614 129 4971) for replacement.

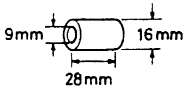
a. TYPE 1

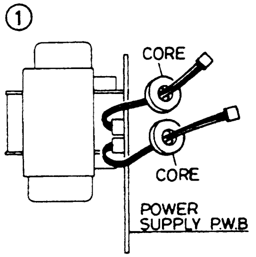

14mm
22mm
10mm

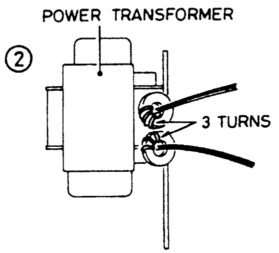
or

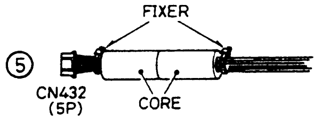

10mm
20mm
10mm

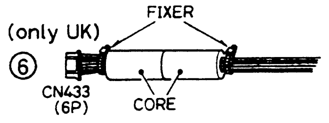
b. TYPE 2

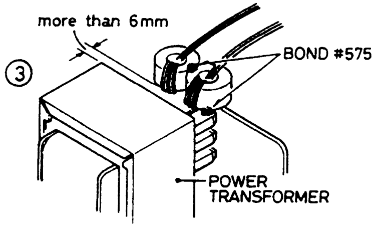

9mm
16mm
28mm

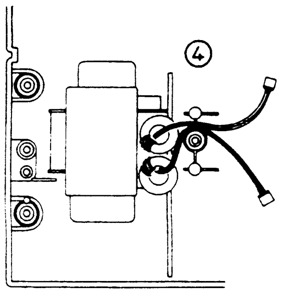

①
CORE
CORE
POWER SUPPLY P.W.B

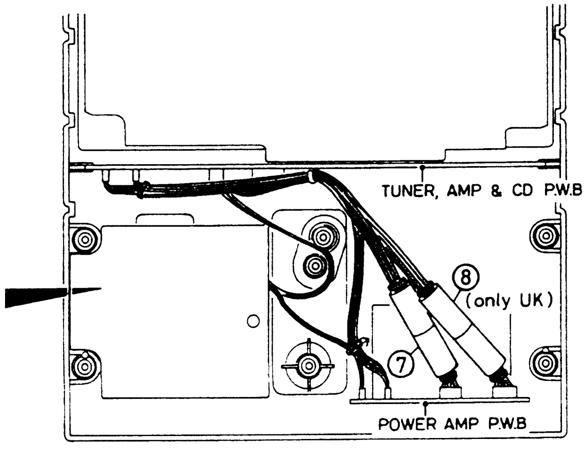

POWER TRANSFORMER
②
3 TURNS


FIXER
⑤
CN432
(5P)
CORE

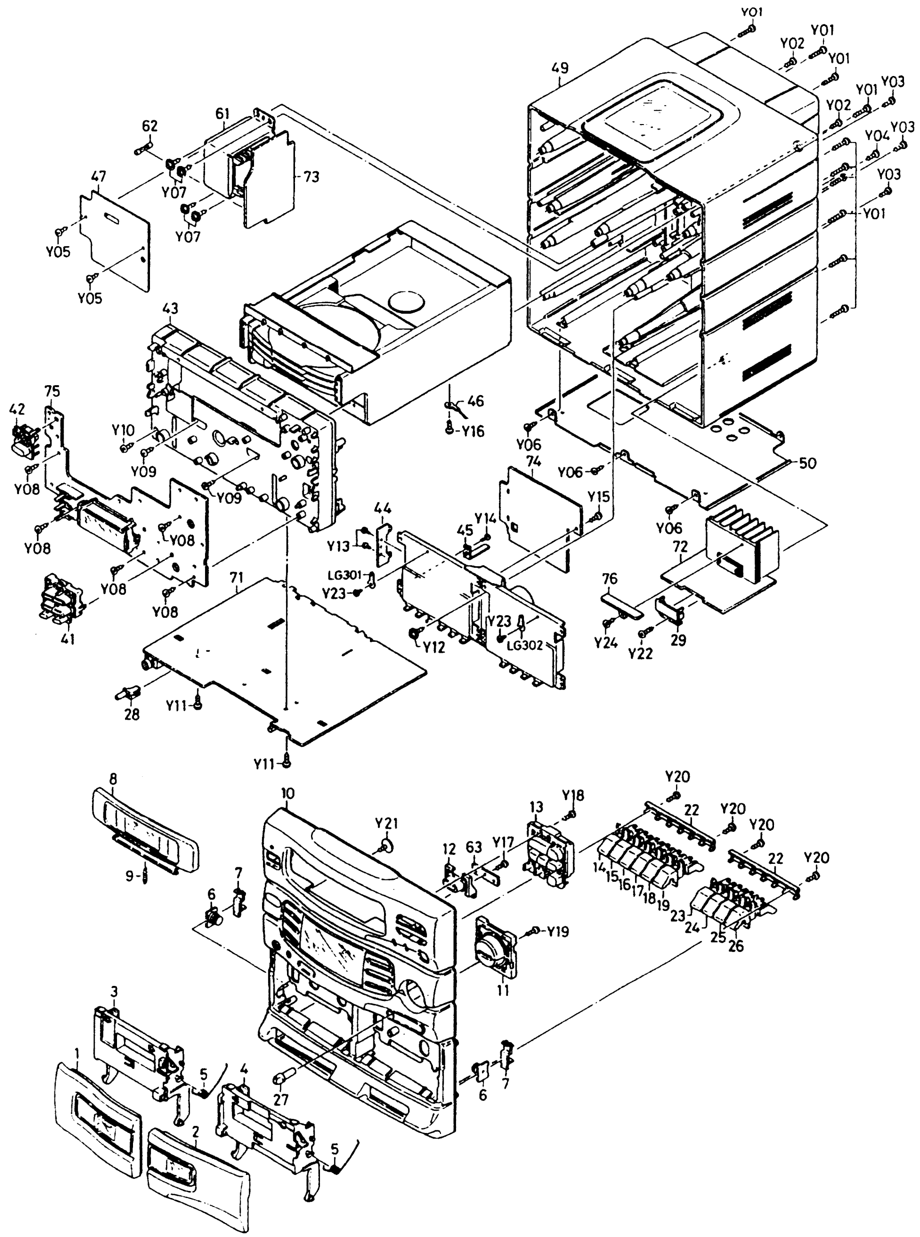

FIXER
(only UK)
⑥
CN433
(6P)
CORE


more than 6mm
BOND #575
③
POWER TRANSFORMER




TUNER, AMP & CD P.W.B
⑧
(only UK)
⑦
POWER AMP P.W.B

EXPLODED VIEW (CABINET & CHASSIS)


Y01
Y02
Y01
Y01
49
Y01
Y03
Y02
Y04
Y03
Y03
Y01
62
61
47
73
Y07
Y07
Y05
Y05
43
46
Y16
75
42
Y10
Y09
Y09
Y08
Y08
Y08
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PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CAUTION : **Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.**
Regular type resistors are less than 1/4W carbon type resistors.
Regular type capacitors are less than 50V and less than 1000µF type of Ceramic type and Electrical type.
N.S.P : Not available as service parts.

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	614 270 8071	CARTON CASE (UK)
	614 270 8088	CARTON CASE (XE)
	614 267 8503	CUSHION,TOP,SET TOP
	614 267 8497	CUSHION,BOTTOM,SET BOTTOM
	645 012 1302	POLY SHEET,1200X550MM (UK)
	645 012 1326	POLY SHEET,1200X550MM (XE)
	614 268 1329	INSTRUCTION MANUAL (UK)
	614 270 8118	INSTRUCTION MANUAL (XE)
	645 005 1227	ASSY,ANTENA,LOOP,AM
	614 023 7344	ANTENNA,FM
or	614 229 4635	ANTENNA,FM
	⚠645 007 1416	POWER CORD,AC (UK)
or	⚠645 005 7137	POWER CORD,AC (UK)
	⚠614 235 7859	POWER CORD,AC (XE)
or	⚠614 023 1779	POWER CORD,AC (XE)
	645 009 0271	REMOCON,RB-D9,REMOTE CONTROL
	645 005 7007	BATTERY COVER,REMOTE CONTROL
	614 245 8570	NOTICE (UK)

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	614 270 7609	ASSY,COVER,LEFT,TAPE"B"
2	614 270 7623	ASSY,COVER,RIGHT,TAPE"A"
3	614 267 7001	LID,CASSETTE,LEFT,TAPE"B"
4	614 267 7018	LID,CASSETTE,RIGHT,TAPE"A"
5	614 267 7780	SPRING,WIRE,CASSETTE OPEN
6	614 270 8316	ASSY,GEAR,CASSETTE
7	614 267 8312	MOUNTING,GEAR SUPPORT
8	614 270 7647	ASSY,DOOR,CD
9	614 267 7773	SPRING,TENSION,CD DOOR CLOSE
10	614 270 7531	ASSY,CABINET,FRONT
11	614 267 6769	BUTTON,VOLUME
12	614 267 6738	BUTTON,FUNCTION
13	614 267 6745	BUTTON,CD PLAY
14	614 267 6776	BUTTON,RECORD,TAPE"B"
15	614 267 6783	BUTTON,PLAY,TAPE"B"
16	614 267 6790	BUTTON,REW,TAPE"B"
17	614 267 6806	BUTTON,F.FWD,TAPE"B"
18	614 267 6813	BUTTON,STOP/EJECT,TAPE"B"
19	614 267 6820	BUTTON,PAUSE,TAPE"B"
22	614 270 8422	MOUNTING,MECHANISM BUTTON
23	614 267 8237	BUTTON,PLAY,TAPE"A"
24	614 267 8244	BUTTON,REW,TAPE"A"
25	614 267 8251	BUTTON,F.FWD,TAPE"A"
26	614 267 8268	BUTTON,STOP/EJECT,TAPE"A"
27	614 267 8305	KNOB,ROTARY,BALANCE
28	614 273 9167	BUTTON,DUBBING/BEAT CANCEL
29	614 261 1319	MOUNTING,POWER AMP.PWB
41	614 267 6752	BUTTON,TUNING/ BAND/MODE/PRESET
42	614 267 6721	BUTTON,POWER
43	614 267 6905	CHASSIS,CD MECHANISM PWB
44	614 270 8408	HOLDER,TAPE DECK PWB
45	614 216 9346	SPRING,PLATE,RECORD/PLAY
46	614 130 0382	LUG,GROUND
47	614 277 2256	SHIELD,COVER,POWER TRANSFORMER (UK)
47	614 268 8908	SHIELD,COVER,POWER TRANSFORMER (XE)
49	614 270 7562	ASSY,CABINET,BACK (UK)
49	614 270 7579	ASSY,CABINET,BACK (XE)
50	614 268 8922	SHIELD,BACK CABINET,BOTTOM
	614 268 8915	SHIELD,CABINET BACK MTG.
	614 208 0986	CUSHION,10X40MM, MECHANISM LEAD MTG.
	614 129 4971	FIXER,NYLON,LEAD MTG.
	614 224 3688	LABEL,SAFETY,LASER CAUTION
	614 231 6832	LABEL,SAFETY,LASER,CLASS 1

FIXING PARTS

Ref. No.	Part No.	Description
Y01	411 021 4906	SCR S-TPG BIN 3X20MM, CABINET REAR
Y02	411 021 3701	SCR S-TPG BIN 3X10MM, CD MECHANISM
Y03	411 021 3701	SCR S-TPG BIN 3X10MM, VIDEO SOCKET/ANTENNA TERMINAL
Y04	411 021 3701	SCR S-TPG BIN 3X10MM, AC POWER SOCKET
Y05	411 021 3503	SCR S-TPG BIN 3X10MM, SHIELD,POWER TRANSFORMER
Y06	411 021 3503	SCR S-TPG BIN 3X10MM, SHIELD, BACK CABINET, BOTTOM MTG.
Y07	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, POWER TRANSFORMER
Y08	411 021 3503	SCR S-TPG BIN 3X10MM, FRONT P.W.BOARD
Y09	411 021 3503	SCR S-TPG BIN 3X10MM,CHASSIS
Y10	411 021 3503	SCR S-TPG BIN 3X10MM,CHASSIS
Y11	411 021 3503	SCR S-TPG BIN 3X10MM, TUNER,AMP. & CD P.W.BOARD
Y12	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, TAPE MECHANISM
Y13	411 028 2905	SCR S-TPG PAN 2X4MM, TAPE MECHANISM BRACKET
Y14	411 028 2806	SCR S-TPG PAN 2X3MM, RECORD/PLAY SPRING PLATE
Y15	411 021 3503	SCR S-TPG BIN 3X10MM, TAPE DECK PWB
Y16	411 028 9201	SCR S-TPG PAN 3X4MM,GND, CD MECHANISM

Ref. No.	Part No.	Description
Y17	411 021 3503	SCR S-TPG BIN 3X10MM, FUNCTION BUTTON
Y18	411 021 3503	SCR S-TPG BIN 3X10MM, CD PLAY BUTTON
Y19	411 021 3503	SCR S-TPG BIN 3X10MM, VOLUME BUTTON
Y20	411 021 3503	SCR S-TPG BIN 3X10MM, MECHANISM BUTTON BRACKET-M
Y21	412 003 1708	SPECIAL SCREW,FRONT PANEL
Y22	411 021 3503	SCR S-TPG BIN 3X10MM, POWER AMP. PWB
Y23	411 028 6200	SCR S-TPG PAN 2.6X6MM, LUG,TAPE MECHANISM MTG.
Y24	411 021 3503	SCR S-TPG BIN 3X10MM, TRANSISTOR (Q4901)PWB MTG. (XE:TYPE 2)
	411 098 0801	SCR S-TPG BIN 3X14MM, PHONO GND,REAR PANEL (UK)
	411 008 0402	WASHER, OUT TW 3X6.5X0.45MM PHONO GND (UK)
	411 105 9704	WASHER,3X10X1MM, PHONO GND (UK)

ELECTRICAL PARTS

Ref. No.	Part No.	Description
61	⚠645 011 1662	TRANSFORMER,POWER,PT401
62	⚠423 016 9605	FUSE 250V 0.4A,FU491
63	614 270 7142	PWB,APPEARANCE
CN121	614 271 2191	ASSY,CONNECTOR-S,4P, CD-CD MECHANISM
CN310	614 253 8463	ASSY,CONNECTOR-S,4P,R/P HEAD
or	614 273 0393	ASSY,CONNECTOR-S,4P,R/P HEAD
CN311	614 251 1404	ASSY,CONNECTOR-S,3P,P HEAD
or	614 273 0386	ASSY,CONNECTOR-S,3P,P HEAD
CN312	614 251 1411	ASSY,CONNECTOR-S,2P,E HEAD
or	614 273 0416	ASSY,CONNECTOR-S,2P,E HEAD
CN313	614 251 3279	ASSY,CONNECTOR-S,6P, MECHANISM SWITCH
or	614 273 0409	ASSY,CONNECTOR-S,6P, MECHANISM SWITCH
	614 265 9458	SPACER,POWER TRANSFORMER-PWB
	645 013 5569	CORE,FERRITE,22X10X14MM, POWER SUPPLY PWB LEAD MTG.
or	645 013 6498	CORE,FERRITE,20X10X10MM, POWER SUPPLY PWB LEAD MTG.
	645 013 5552	CORE,FERRITE,16X28X9MM, POWER AMP.PWB, INPUT LEAD MTG.
or	645 013 6481	CORE,FERRITE,16X28X9MM, POWER AMP.PWB, INPUT,LEAD MTG.

TUNER, AMP. & CD P.W.BOARD ASSY

Ref. No.	Part No.	Description
71	614 270 6091	ASSY,PWB,TUNER,AMP & CD (UK)
71	614 270 6060	ASSY,PWB,TUNER,AMP & CD (XE)
	614 256 7852	SHIELD,PWB MTG.
	614 125 6443	CUSHION,15X25X3MM,SHIELD-PWB
C1153	403 058 5209	POLYESTER 0.15U K 50V
C2154	403 082 0201	POLYPRO 470P J 100V
C2463	403 106 1603	NP-ELECT 1U Q 50V
C4903	403 135 0400	ELECT 3300U M 25V
CF221	614 030 5630	I.F FILTER,FM,RED
CF222	614 030 5630	I.F FILTER,FM,RED
CF231	614 246 0849	FILTER,AM
CF232	645 009 5856	DISCRIMINATOR,CERAMIC,FM
CN101	645 010 1465	SOCKET,FPC 13P
CN102	645 005 8110	PLUG,4P
CN103	645 005 8127	PLUG,6P
CN104	614 271 2184	ASSY,WIRE,8P
CN201	614 255 5750	TERMINAL,ANTENNA
CN401	645 006 1141	JACK,PHONE D6.43
CN402	645 006 1875	PLUG,2P
CN403	645 006 1875	PLUG,2P
CN404	614 224 9864	SOCKET,3P
CN405	645 006 0885	PLUG,13P
CN407	614 020 1253	SOCKET,6P (UK)
CN414	645 004 2881	PLUG,2P
CN417	645 004 2898	PLUG,3P (XE:TYPE 2)
CN420	614 020 1222	PLUG,3P
CN424	614 020 1246	SOCKET,5P
CN432	614 270 6411	ASSY,WIRE,5P
CN433	614 270 6428	ASSY,WIRE,6P,PHONO (UK)
CN433	614 268 3866	ASSY,WIRE,6P,PHONO (XE)
CN434	614 239 1839	TERMINAL,PHONO GND (UK)
CN435	614 268 3866	ASSY,WIRE,3P (UK)
CT251	614 007 6356	TRIMMER,11PF
CT252	645 004 2317	TRIMMER,30PF
D1351	407 099 5402	ZENER DIODE MTZJ6.2B
or	407 051 7208	ZENER DIODE GZS6.2Y
D1361	407 099 4504	ZENER DIODE MTZJ3.9A
or	407 051 5808	ZENER DIODE GZS3.9X
D1371	407 099 4504	ZENER DIODE MTZJ3.9A
or	407 051 5808	ZENER DIODE GZS3.9X
D1372	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D1601~4	407 004 9709	DIODE DSK10C
D2103	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2131~2	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2151~2	407 091 5004	VARACTOR DIODE SVC321SPA-C-2
D2153~4	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D2452~3	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
or	407 012 5809	DIODE 1SS176
or	407 153 6109	DIODE 1SS119-041
D4901	407 099 6706	ZENER DIODE MTZJ13A
D4902	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4903	407 127 3905	DIODE MTZJ5.6B
HS001	614 249 0754	HEAT SINK,Q4901 MTG. (UK/XE TYPE 1)
IC101	409 327 3402	IC CXA1782BQ
IC102	409 317 8509	IC BA6398FP
IC104	409 322 2707	IC CXD2518Q
IC106	409 039 7408	IC NJM4558D
or	409 018 4305	IC LA6458D
IC131	⚠409 127 1400	IC LB1648
IC132	409 114 4803	IC LB1641
IC231	409 345 5204	IC TA2057N
IC245	409 066 7600	IC LM7001
IC402	409 265 3601	IC TC9213P
IC403	409 211 6601	IC NJM4558L

PARTS LIST

Ref. No.	Part No.	Description
IC404	⚠409 026 8500	IC L78M05
or	⚠409 057 6407	IC UPC78M05H
or	⚠409 169 7804	IC NJM78M05FA
IC405	409 051 2801	IC TC4052BP
or	409 336 0508	IC BU4052BC
L1401	645 002 1534	INDUCTOR,8.2U K
L1500	614 212 3171	INDUCTOR,FERITE
L1501	614 212 3171	INDUCTOR,FERITE
L2151	614 255 5781	TRANSFORMER,RF,MW
L2152	614 255 5798	TRANSFORMER,RF,LW
L2153	614 255 5767	TRANSFORMER,OSC,MW
L2154	614 255 5774	TRANSFORMER,OSC,LW
L2301	645 004 0580	INDUCTOR,1M,J
L2451	645 001 4581	INDUCTOR,100U,K
L4910	645 001 4581	INDUCTOR,100U,K
LG001	614 051 9785	LUG,GND
LG002	614 217 7266	LUG,LEAD MTG.
LG301	614 129 9082	LUG,GROUND,TAPE MECHANISM
LG302	614 129 9082	LUG,GROUND,TAPE MECHANISM
LPF21	614 255 8119	FILTER,LC
PR131	645 006 2346	PROTECTOR,IC,0.6A 50V
PR491	⚠645 006 2322	PROTECTOR,IC,0.4A 50V
Q1101~2	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
or	405 002 1305	TR 2SA1048-Y
or	405 002 1107	TR 2SA1048-GR
Q1201	405 009 5207	TR 2SB927-S
or	405 001 9302	TR 2SA1020-Y
Q1202	405 008 6809	TR 2SB808-F-SPA
Q1211	405 000 3103	TR DTC114ES
or	405 078 2909	TR BA1A4M
or	405 001 0200	TR RN1202
Q1321	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q1351	405 000 0508	TR DTA114ES (Q1351,Q1361,Q1371)
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
Q2151	405 021 0600	TR 2SD1012-G-SPA
Q2152	405 021 0600	TR 2SD1012-G-SPA
Q2153	405 021 0600	TR 2SD1012-G-SPA
Q2154	405 021 0600	TR 2SD1012-G-SPA
Q2155	405 021 0600	TR 2SD1012-G-SPA
Q2156	405 026 9004	TR 2SK222-D
Q2201	405 016 0806	TR 2SC2839-E
Q2302	405 000 6104	TR DTC144ES
or	405 018 2501	TR 2SC3399
Q2451~3	405 000 0904	TR DTA114YS
or	405 036 3702	TR 2SA1564
Q2461	405 019 3705	TR 2SC536-G-AUD-SPA
Q2462	405 019 3705	TR 2SC536-G-AUD-SPA
Q2901	405 019 3705	TR 2SC536-G-AUD-SPA
Q4721	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4821	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4901	⚠405 035 7107	TR 2SD1913-R (UK/XE:TYPE 1)
or	⚠405 035 7206	TR 2SD1913-S
or	⚠405 095 1602	TR 2SD2061-E
or	⚠405 095 1701	TR 2SD2061-F
Q4902	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4903	405 000 3103	TR DTC114ES (Q4903,Q4906)
or	405 078 2909	TR BA1A4M
or	405 001 0200	TR RN1202
Q4921	405 000 1208	TR DTA124ES
or	405 078 2206	TR BN1F4M
or	405 001 1207	TR RN2203
Q4922	405 000 3103	TR DTC114ES
or	405 078 2909	TR BA1A4M
or	405 001 0200	TR RN1202
R1350	⚠402 045 0302	RESISTOR 4.7 J- 1W
R1371	402 049 2500	RESISTOR 18 J- 2W
R4901	⚠402 060 5306	RESISTOR 1 J- 1/2W
R4930	401 007 0107	RESISTOR 100 JA 1/2W
S4501	614 244 8335	SWITCH,SLIDE,VIDEO/PHONO (UK)
S4901	614 247 6840	SWITCH,DUBBING/BEAT CANCEL
or	614 023 9683	SWITCH,DUBBING/BEAT CANCEL
S4950	614 221 8327	SWITCH,TACT,FUNCTION
S4951	614 221 8327	SWITCH,TACT,RESET
SA001	411 021 6405	SCR S-TPG BIN 3X8MM,Q4901
TU211	614 241 7447	TUNER,FM
VR101	645 001 9326	VR,SEMI,100K N
VR405	614 248 1752	VR,ROTARY,BALANCE
X1401	614 254 6932	RESONATOR,CERAMIC,33.8688MHz
or	614 259 2137	RESONATOR,CERAMIC,33.86MHz
X2301	645 009 5832	OSC,CERAMIC 456KHZ
X2461	614 229 2457	CRYSTAL,7.2MHz
or	614 204 0317	CRYSTAL,7.2MHz
or	614 240 1118	RESONATOR,7.2MHz
XF401	645 006 3596	INDUCTOR,1.1UH (XF401-XF405)
XF406	645 006 3602	INDUCTOR,1.1UH

POWER AMP. P.W.BOARD ASSY

Ref. No.	Part No.	Description
72	614 270 6169	ASSY,PWB,POWER AMP. (UK)
72	614 268 4979	ASSY,PWB,POWER AMP. (XE)
C4704	403 059 9008	POLYESTER 0.22U M 50V
C4804	403 059 9008	POLYESTER 0.22U M 50V
C4913	403 135 9106	ELECT 3300U M 35V
CN410	645 004 2898	PLUG,3P
CN411	645 005 9292	PLUG,5P
CN412	645 004 2881	PLUG,2P
CN452	645 005 8127	PLUG,6P (UK)
D4011	⚠407 141 2809	DIODE IN5402
D4012	⚠407 141 2809	DIODE IN5402

PARTS LIST

Ref. No.	Part No.	Description
D4013	⚠407 141 2809	DIODE IN5402
D4014	⚠407 141 2809	DIODE IN5402
HS401	614 261 1234	HEAT SINK,IC401 MTG.
IC401	409 274 2800	IC LA4450
IC451	409 211 6601	IC NJM4558L (UK)
Q4701	405 021 0600	TR 2SD1012-G-SPA (Q4701,Q4801)
or	405 033 6805	TR 2SD1468S-S
or	405 021 0204	TR 2SD1012-F-SPA
Q4904	405 018 0200	TR 2SC3331-U
Q4905	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
R4705	⚠402 004 5201	FUSIBLE RES 2.2 J- 1/4W
R4805	⚠402 004 5201	FUSIBLE RES 2.2 J- 1/4W
	411 021 3503	SCR S-TPG BIN 3X10MM, IC401 MTG.
	411 021 3503	SCR S-TPG BIN 3X10MM, HEAT SINK MTG.

POWER SUPPLY P.W.BOARD ASSY

Ref. No.	Part No.	Description
73	614 270 6114	ASSY,PWB,POWER SUPPLY (UK)
73	614 270 6084	ASSY,PWB,POWER SUPPLY (XE)
CN421	614 020 1215	SOCKET,2P
CN423	⚠614 239 4724	PLUG,AC POWER SOCKET
CN425	614 020 1215	SOCKET,2P
CN431	614 267 8701	ASSY,WIRE,2P
CN438	614 271 2870	ASSY,WIRE,2P
D4001~4	⚠407 088 6403	DIODE GP15D-L
FCLP1	645 006 4760	HOLDER,FUSE
FCLP2	645 006 4760	HOLDER,FUSE
L4901	⚠614 213 5761	INDUCTOR,FERITE
or	⚠614 229 0408	INDUCTOR,FERITE
PR490	⚠614 263 8781	IC PROTECTOR ICP-N70

TAPE DECK P.W.BOARD ASSY

Ref. No.	Part No.	Description
74	614 270 6053	ASSY,PWB,TAPE DECK
C3911	403 059 5000	POLYESTER 0.022U J 50V
C3917	403 061 9607	POLESTER 0.047U J 50V
CN301	645 005 7373	PLUG,3P
CN302	645 005 8110	PLUG,4P
CN304	614 272 3098	ASSY,WIRE,13P
CN305	645 005 8127	PLUG,6P
CN306	614 020 6562	SOCKET,4P
or	614 223 9223	SOCKET,4P
CN307	645 005 7366	PLUG,2P
D3901~2	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3905~7	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D3908	407 099 6805	DIODE MTZJ13B
IC301	409 251 1000	IC TA8189N
L3901	645 010 7177	TRANSFORMER,OSC,85KHZ
Q3702	405 000 3103	TR DTC114ES
or	405 078 2909	TR BA1A4M
or	405 001 0200	TR RN1202
Q3703	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q3802	405 000 3103	TR DTC114ES
or	405 078 2909	TR BA1A4M
or	405 001 0200	TR RN1202
Q3803	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q3901	⚠405 035 7107	TR 2SD1913-R
or	⚠405 035 7206	TR 2SD1913-S
or	⚠405 095 1602	TR 2SD2061-E
or	⚠405 095 1701	TR 2SD2061-F
Q3902	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q3903	405 000 0508	TR DTA114ES
or	405 078 2305	TR BN1A4M
or	405 001 1108	TR RN2202
Q3904	405 005 2002	TR 2SA733-P
or	405 005 1906	TR 2SA733-K
or	405 001 7001	TR 2SA1015-GR
Q3912	405 018 0200	TR 2SC3331-U
Q3916	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
R3904	⚠402 052 4607	FUSIBLE RES 1.0 J- 1/4W
S3000	614 243 3256	SWITCH,SLIDE,RECORD/PLAY (S3001-S3006)
SVR01	645 006 2414	VR,SEMI,2K N
XF301	645 006 3602	INDUCTOR,1.1UH

FRONT P.W.BOARD ASSY

Ref. No.	Part No.	Description
75	614 270 6107	ASSY,PWB,FRONT (UK)
75	614 270 6077	ASSY,PWB,FRONT (XE)
	614 248 0458	SHEET,LCD,BLUE
	614 256 1041	SHEET,LCD,WHITE
	614 261 1142	COVER,LCD
	614 261 1333	REFLECTOR,LCD MOUNT
CN251	645 006 0915	PLUG,4P
CT250	614 215 5561	RESONATOR,CERAMIC,4.19MHZ
or	614 215 5523	RESONATOR,CERAMIC,4.19MHZ
D2501	408 006 3702	LED SLZ-190B-05-T1
D2520	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D2550	407 127 3905	ZENER DIODE MTZJ5.6B
D2551~3	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4761	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133
D4861	407 007 9904	DIODE GMA01
or	407 012 4406	DIODE 1SS133

PARTS LIST

Ref. No.	Part No.	Description
IC251	410 237 0306	IC TMP87CM21F-2073
IR201	407 138 4700	PHOTO DIODE SPS-420-1
LP251	614 046 0094	LAMP,0.1A,12V
LP252	614 046 0094	LAMP,0.1A,12V
L2501	645 001 4581	INDUCTOR,100U K
L2502	645 002 1534	INDUCTOR,8.2U K
L2550	645 002 1534	INDUCTOR,8.2U K
LCD01	645 010 7184	LCD
LG002	614 217 7266	LUG,LEAD MTG.
LG251	614 129 9082	LUG,GROUND
Q2503	405 000 3103	TR DTC114ES
or	405 078 2909	TR BA1A4M
or	405 001 0200	TR RN1202
Q2550~1	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
or	405 002 1305	TR 2SA1048-Y
or	405 002 1107	TR 2SA1048-GR
Q2552	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q2553	405 004 4601	TR 2SA608-F-SPA
or	405 003 5401	TR 2SA1317-U
or	405 006 1905	TR 2SA933S-S
or	405 006 1806	TR 2SA933S-R
or	405 002 1305	TR 2SA1048-Y
or	405 002 1107	TR 2SA1048-GR
Q2554	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4761	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
Q4861	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 014 5209	TR 2SC2458-GR
or	405 014 5407	TR 2SC2458-Y
S2501	614 240 1002	SWITCH,TACT,TUNING UP
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2502	614 240 1002	SWITCH,TACT,TUNING DOWN
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2503	614 240 1002	SWITCH,TACT,POWER
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2504	614 240 1002	SWITCH,TACT,RESET DOWN
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2505	614 240 1002	SWITCH,TACT,RESET UP
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2506	614 240 1002	SWITCH,TACT,MODE
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2507	614 240 1002	SWITCH,TACT,BAND
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2508	614 240 1002	SWITCH,TACT,MEMORY
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2509	614 240 1002	SWITCH,TACT,REPEAT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2510	614 240 1002	SWITCH,TACT,PLAY/PAUSE
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2511	614 240 1002	SWITCH,TACT,STOP
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2512	614 240 1002	SWITCH,TACT,DISC 1
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2513	614 240 1002	SWITCH,TACT,DISC 2
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2514	614 240 1002	SWITCH,TACT,DISC 3
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2515	614 240 1002	SWITCH,TACT,OPEN/CLOSE
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2516	614 240 1002	SWITCH,TACT,VOLUME UP
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S2517	614 240 1002	SWITCH,TACT,VOLUME DOWN
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
VR401	645 009 0233	VR,SLIDE 50KBX2,BASSXPANDER
VR402	645 009 0233	VR,SLIDE 50KBX2,MILD
VR403	645 009 0233	VR,SLIDE 50KBX2,HIGH

TRANSISTOR (Q4901) P.W.BOARD ASSY (XE:TYPE 2)

Ref. No.	Part No.	Description
76	614 275 9844	ASSY,PWB,TRANSISTOR (Q4901)
CN427	614 275 9936	ASSY,WIRE,3P,POWER AMP. PWB
Q4901	⚠405 035 7107	TR 2SD1913-R
or	⚠405 035 7206	TR 2SD1913-S
or	⚠405 095 1602	TR 2SD2061-E
or	⚠405 095 1701	TR 2SD2061-F
		TUBE,GLASS,1.5X10MM, Q4901 MTG.

EXPLODED VIEW (SPEAKER BOX) & PARTS LIST

SPEAKER BOX ASSY (SX-D9L/AU) (only UK)

Ref. No.	Part No.	Description
81	614 269 7313	ASSY,GRILLE
82	614 272 3234	ASSY,CABINET FRONT(L)
83	614 269 9393	ASSY,CABINET,BACK
84	419 002 0206	PIEZO BUZZER 7MB-20-5R5 TWEETER
85	614 256 2918	SPEAKER
86	614 276 8457	CORD,2P,CONNECTOR
Y81	411 021 4906	SCR S-TPG BIN 3X20MM BACK CABINET
Y82	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, SPEAKER
Y83	411 021 4005	SCR S-TPG BIN 3X12MM,GRILE
	645 012 1296	POLY SHEET,1100X350MM

SPEAKER BOX ASSY (SX-D9R/AU) (only UK)

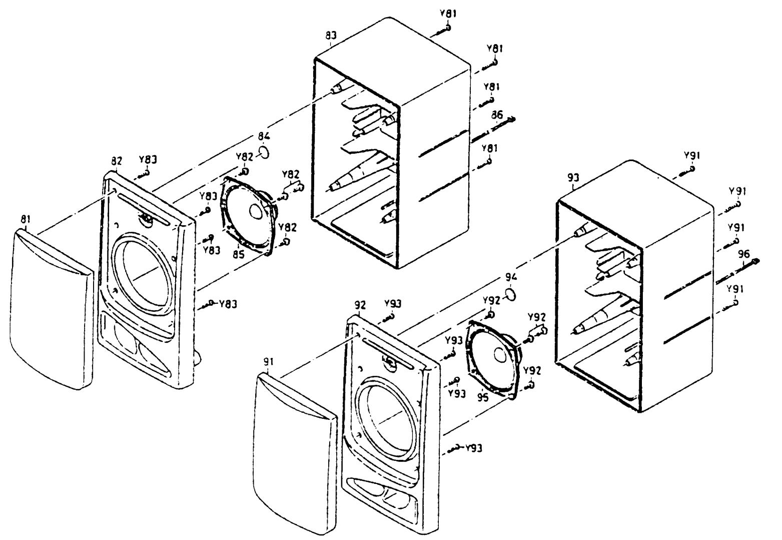
Ref. No.	Part No.	Description
91	614 269 7313	ASSY,GRILLE
92	614 272 3258	ASSY,CABINET FRONT,(R)
93	614 269 9393	ASSY,CABINET,BACK
94	419 002 0206	PIEZO BUZZER 7MB-20-5R5 TWEETER
95	614 256 2918	SPEAKER
96	614 276 8457	CORD,2P,CONNECTOR
Y91	411 021 4906	SCR S-TPG BIN 3X20MM BACK CABINET
Y92	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, SPEAKER
Y93	411 021 4005	SCR S-TPG BIN 3X12MM,GRILE
	645 012 1296	POLY SHEET,1100X350MM

SPEAKER BOX ASSY (SX-D9L/XE) (only XE)

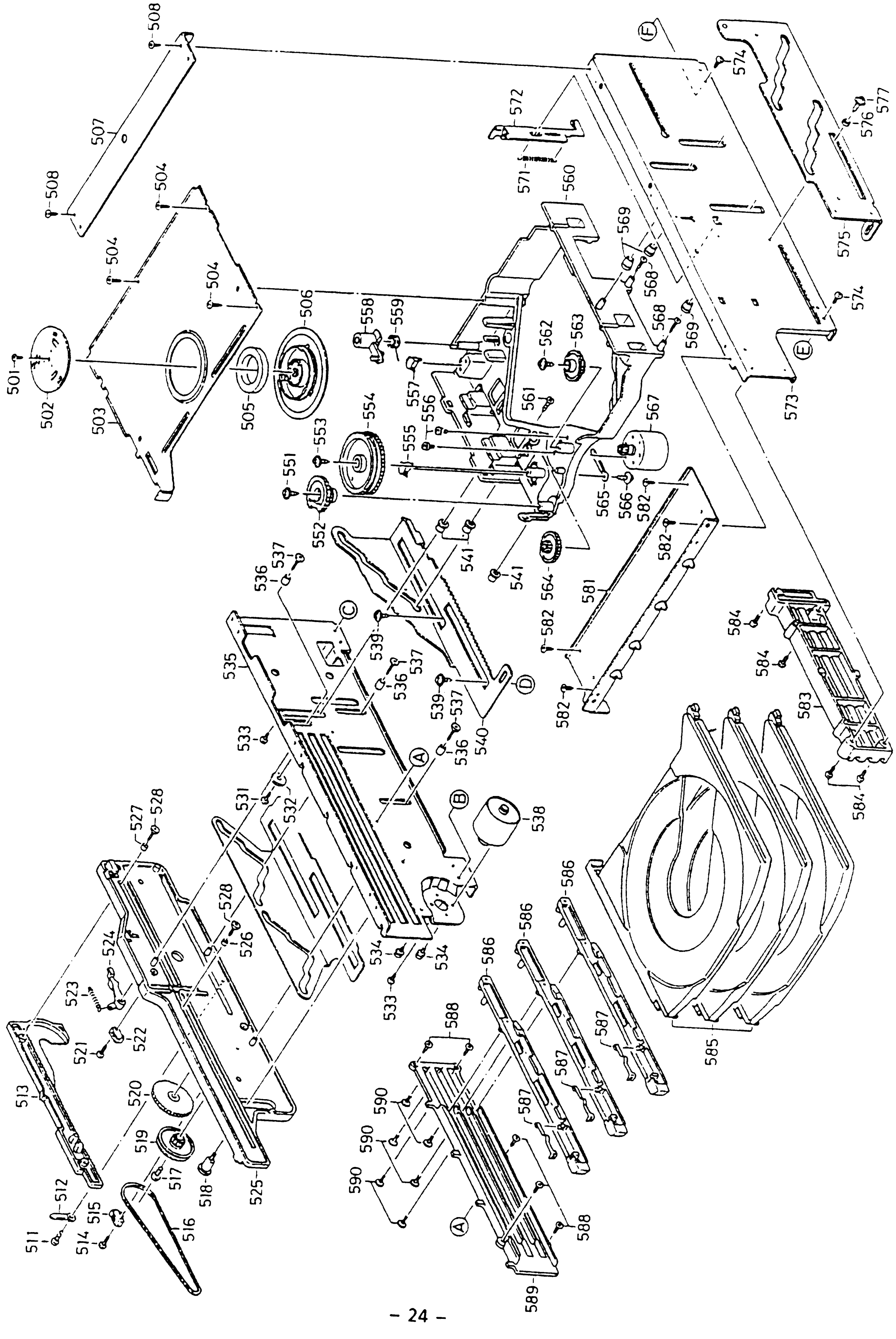
Ref. No.	Part No.	Description
81	614 269 7313	ASSY,GRILLE
82	614 272 3234	ASSY,CABINET FRONT(L)
83	614 269 9393	ASSY,CABINET,BACK
84	419 002 0206	PIEZO BUZZER 7MB-20-5R5 TWEETER
85	614 256 2918	SPEAKER
86	614 258 1162	CORD,2P,CONNECTOR
Y81	411 021 4906	SCR S-TPG BIN 3X20MM BACK CABINET
Y82	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, SPEAKER
Y83	411 021 4005	SCR S-TPG BIN 3X12MM,GRILE
	645 012 1319	POLY SHEET,1100X350MM

SPEAKER BOX ASSY (SX-D9R/XE) (only XE)

Ref. No.	Part No.	Description
91	614 269 7313	ASSY,GRILLE
92	614 272 3258	ASSY,CABINET FRONT,(R)
93	614 269 9393	ASSY,CABINET,BACK
94	419 002 0206	PIEZO BUZZER 7MB-20-5R5 TWEETER
95	614 256 2918	SPEAKER
96	614 258 1162	CORD,2P,CONNECTOR
Y91	411 021 4906	SCR S-TPG BIN 3X20MM BACK CABINET
Y92	411 020 8905	SCR S-TPG BRZ+FLG 3X10MM, SPEAKER
Y93	411 021 4005	SCR S-TPG BIN 3X12MM,GRILE
	645 012 1319	POLY SHEET,1100X350MM



EXPLODED VIEW (CD CHANGER MECHANISM)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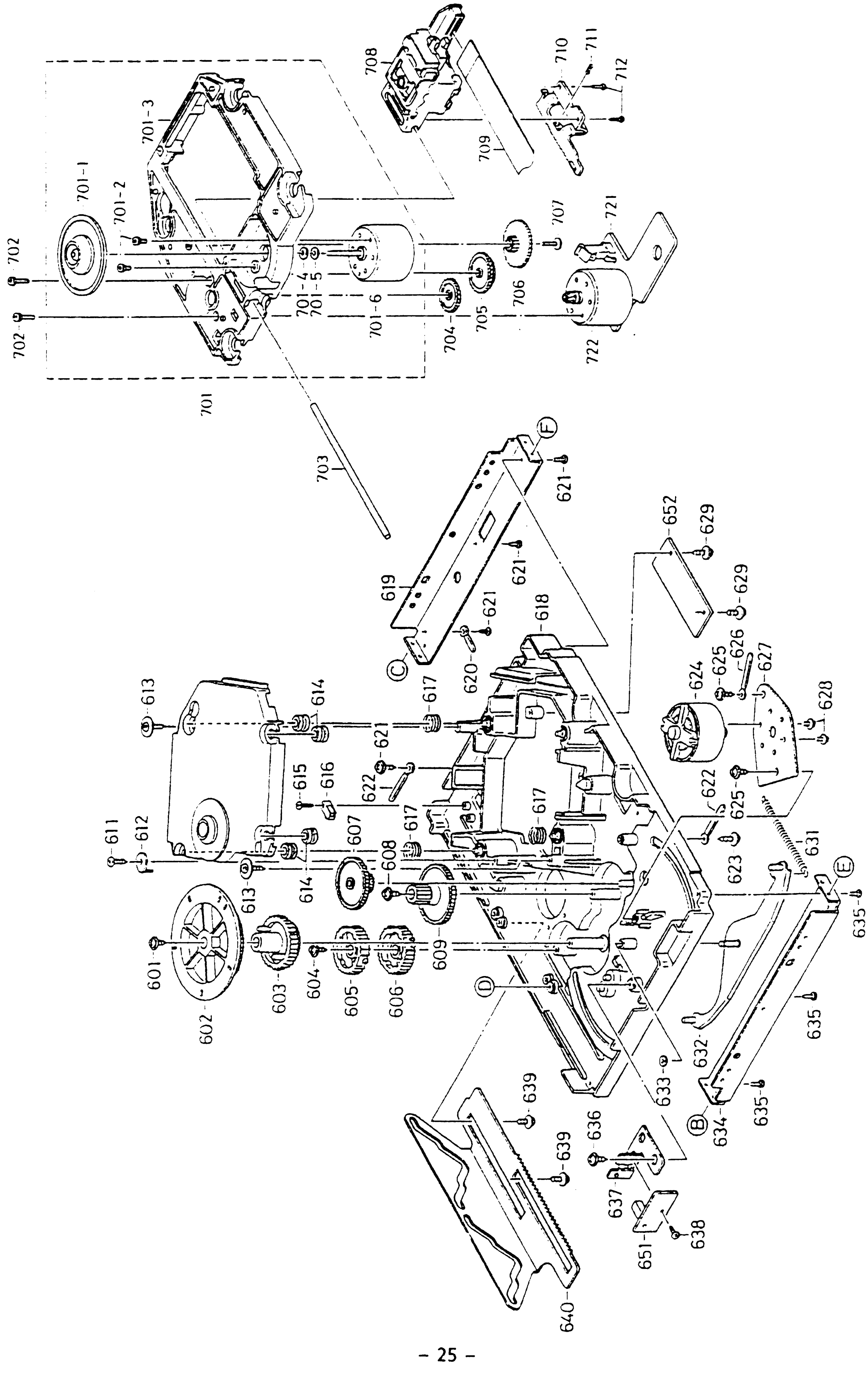
EXPLODED VIEW (CD CHANGER & BASE MECHANISM)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PARTS LIST

CD CHANGER MECHANISM (PM-CDCH3/SH)

Ref. No.	Part No.	Description
501	411 022 7500	SCR S-TPG PAN 2X4MM, CHUCK PULLEY FIX
502	614 266 8061	HOLDER,CHUCK PLATE PULLEY
503	614 266 1840	HOLDER,CHUCK BRACKET
504	411 022 7807	SCR S-TPG PAN 2X6MM, CHUCK BRACKET FIX
505	645 009 9809	MAGNET CHUCK,CHUCKING
506	614 272 1674	ASSY,PULLEY,CHUCK
507	614 266 1918	JOINT,B-TOP ENCOURAGER
508	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
511	411 021 0809	SCR S-TPG BIN 2X6MM,LUG FIX
512	614 129 9341	LUG,OPEN/CLOSE SWITCH LOAD
513	614 266 1833	GEAR,OPEN/CLOSE RACK
514	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
515	645 010 6491	SWITCH,LEVER,OPEN END
516	614 268 5594	BELT,SQUARE,OPEN/CLOSE
517	411 021 2704	SCR S-TPG BIN 2.6X6MM, PULLEY FIX
518	412 004 5705	SPECIAL SCREW,GEAR BLOCK FIX
519	614 266 1987	PULLEY,OPEN/CLOSE IDLER PULLEY
520	614 266 1826	GEAR,OPEN/CLODE IDLER
521	411 021 1202	SCR S-TPG BIN 2X8MM, OPEN/CLOSE SW FIX
522	645 010 6491	SWITCH,LEVER,CLOSE END
523	614 268 0179	SPRING,TENSION,LEVER PULL
524	614 266 2878	LEVER,OPEN/CLOSE LOCK LEVER
525	614 266 1970	MOUNTING,GEAR BLOCK BRACKET
526	614 273 5992	PIPE,GEAR RACK GUIDE(F)
527	614 270 2222	PIPE,GEAR RACK GUIDE(R)
528	412 047 3904	SPECIAL SCREW,2X8MM, GEAR RACK FIX
531	411 022 7807	SCR S-TPG PAN 2X6MM, TRAY HOLDER
532	411 087 4605	WASHER V 2X6X0.4MM
533	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
534	411 044 7007	SCR PAN+SW 2X3MM, OPEN/CLOSE MOTOR FIX
535	614 266 1949	MOUNTING,LEFT SIDE BRACKET
536	614 268 0476	PIPE,OPEN/CLOSE BRAKET GUIDE
537	412 047 3904	SPECIAL SCREW,2X8MM, MOUNTING FIX
538	645 009 1186	ASSY,MOTOR,OPEN/COLSE
539	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,SLIDE FIX
540	614 266 1994	SLIDE,TRAY HOLDER
541	614 268 0469	PIPE,TRAY HOLDER GUIDE
551	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
552	614 266 1819	GEAR,LOAD/UNLOAD DRIVE
553	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
554	614 266 1802	GEAR,LOAD/UNLOAD CAM
555	614 214 9379	SWITCH,UNLOAD END
556	411 044 7205	SCR PAN+SW 2X4MM, LOAD/UNLOAD MTR FIX
557	614 214 9379	SWITCH,LOAD END
558	614 266 1932	LEVER,LOCK
559	614 268 0186	SPRING,WIRE, LOAD/UN-LOAD LOCK LEVER
560	614 266 1963	MOUNTING,TRAY HOLDER
561	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
562	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
563	614 266 8030	GEAR,LOAD/UNLOAD IDLER1
564	614 266 1796	GEAR,LOAD/UNLOAD IDLER2
565	614 129 9136	LUG,LEAD MTG.
566	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
567	645 009 1193	ASSY,MOTOR,LOAD/UNLOAD
568	411 022 8408	SCR S-TPG PAN 2X8MM, TRAY HOLDER
569	614 268 0469	PIPE,TRAY HOLDER GUIDE
571	614 268 0162	SPRING,TENSION,STOPPER PULL
572	614 266 8153	STOPPER,DISC STOPPER
573	614 266 1956	MOUNTING,RIGHT SIDE BRAKET
574	411 028 2905	SCR S-TPG PAN 2X4MM, MOUNTING FIX
575	614 268 2906	ASSY,SLIDE,RIGHT
576	614 270 2239	PIPE,RIGHT SLIDE GUIDE
577	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, RIGHT SLIDE FIX
581	614 266 1901	JOINT,F-TOP ENCOURAGER
582	411 028 2905	SCR S-TPG PAN 2X4MM, JOINT FIX
583	614 266 1864	HOLDER,RIGHT,TRAY GUIDE
584	411 028 3100	SCR S-TPG PAN 2X6MM, HOLDER FIX
585	614 266 2038	TRAY
586	614 266 1871	HOLDER,TRAY GUIDE
587	614 266 8924	SPRING,PLATE,TRAY HOLD
588	411 028 2905	SCR S-TPG PAN 2X4MM, HOLDER FIX
589	614 266 1857	HOLDER,LEFT,TRAY GUIDE
590	412 047 3904	SPECIAL SCREW 2X8MM, HOLDER FIX
601	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
602	614 266 1758	GEAR,UP/DOWN CAM (1)
603	614 266 1765	GEAR,UP/DOWN CAM (2)
604	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
605	614 266 1772	GEAR,UP/DOWN DRIVE (1)
606	614 266 1789	GEAR,UP/DOWN DRIVE (2)
607	614 266 1734	GEAR,UP/DOWN IDLER 1
608	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, GEAR FIX
609	614 266 1741	GEAR,UP/DOWN IDLER 2
611	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,HOLDER FIX
612	614 267 6998	HOLDER,BASE MECHANISM FIX
613	412 032 6408	SPECIAL SCREW, BASE MECHANISM FIX
614	614 237 7031	CUSHION,RUBBER,FLOATING
615	411 021 1202	SCR S-TPG BIN 2X8MM, PLAY SW FIX
616	645 010 6491	SWITCH,LEVER,PLAY
617	614 247 4907	SPRING,COMP,FLOATING
618	614 266 1727	CHASSIS,BOTTOM CHASSIS
619	614 266 1888	JOINT,BOTTOM BACK
620	614 129 9341	LUG,OPEN/CLOSE SWITCH LEAD
621	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
622	614 129 9136	LUG,LOAD/UN-LOAD SWITCH LEAD
623	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, LUG FIX
624	614 268 2890	ASSY,MOTOR,UP/DOWN

PARTS LIST

Ref. No.	Part No.	Description
625	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, BRACKET MOTOR FIX
626	614 129 9136	LUG,SENSOR LEAD
627	614 266 8054	HOLDER,BRACKET MOTOR
628	411 102 6300	SCR PAN-FLG 2.6X2.8MM, UP/DOUN MOTOR FIX
629	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM,CHUKEI PWB FIX
631	614 268 0155	SPRING,TENSION, SYNCRO LEVER PULL
632	614 268 2883	ASSY,LEVER,SYNCRO
633	614 127 1576	WASHER,LEVER ASSY FIX
634	614 272 6600	JOINT,BOTTOM FRONT
635	411 022 7807	SCR S-TPG PAN 2X6MM, JOINT FIX
636	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SENSOR BK FIX
637	614 266 9907	HOLDER,SENSOR BRACKET
638	411 028 2905	SCR S-TPG PAN 2X4MM, SENSOR PWB FIX
639	411 098 8807	SCR S-TPG BRZ+FLG 3X6MM, SLIDE FIX
640	614 266 2007	SLIDE,TRAY SLISE
	614 269 6026	ASSY,WIRE,5P,SENSOR, UP/DOWN MOTOR
	614 269 6033	ASSY,WIRE,6P, LOAD/UNLOAD/PLAY SWITCH
	614 269 6040	ASSY,WIRE,4P, LOAD/UNLOAD,UP/DOWN MOTOR
	614 269 6057	ASSY,WIRE,4P, OPEN/CLOSE SWITCH

CD SENSOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
651	614 270 1928	ASSY,PWB,SENSOR
D191	407 177 6109	PHOTO COUPLE GP1A53E

CD CONNECTOR P.W.BOARD ASSY

Ref. No.	Part No.	Description
652	614 267 6646	ASSY,PWB CD,CONNECTOR, CHANGER
CN191	645 006 0915	PLUG,4P,LOAD/UNLOAD SWITCH
CN192	645 004 2706	PLUG,4P,LOAD/UNLOAD,UP/DOWN MOTOR
CN193	645 006 0939	PLUG,6P,OPEN/CLOSE/PLAY SWITCH
CN194	645 006 0922	PLUG,5P,SENSOR,UP/DOWN MOTOR
CN195	645 006 0915	PLUG,4P,CD PWB
CN196	645 006 0953	PLUG,8P,CD PWB

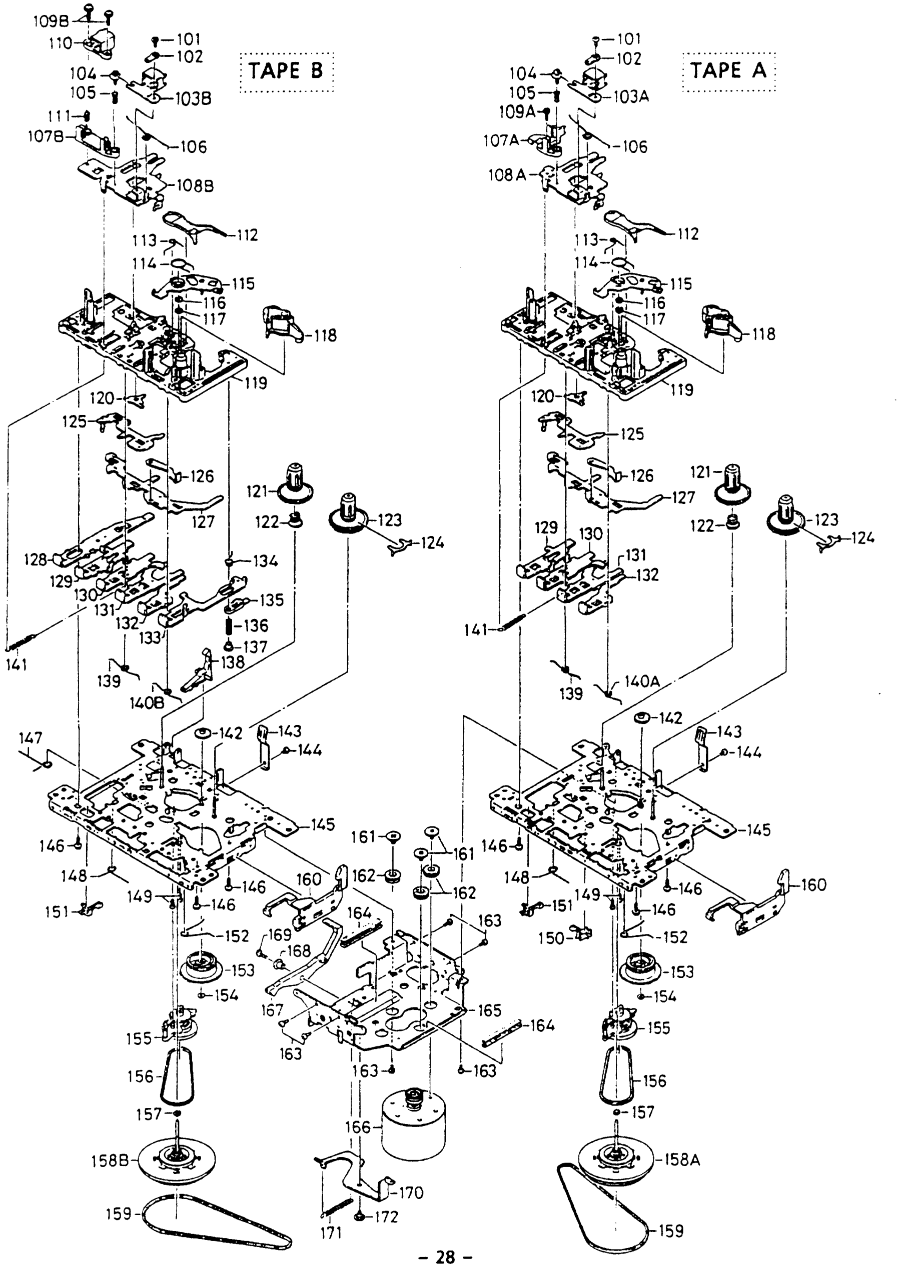
CD BASE MECHANISM (PM-CDBM94D2SH)

Ref. No.	Part No.	Description
701	614 270 2031	ASSY,CHASSIS,BASE MECHANISM
701-1	614 268 3354	ASSY,TURNTABLE,SPINDLE
701-2	411 044 7502	SCR PAN+SW 2X5MM, SPINDLE MOTOR FIX
701-3	614 262 2582	CHASSIS,BASE MECHANISM
701-4	412 032 0208	SPECIAL WASHER,1.9X5X0.3MM
701-5	412 014 5603	SPECIAL WASHER,TURNTABLE STOPPER
701-6	645 007 7821	MOTOR,CD-SPINDLE DC 0.2W, SPINDLE MOTOR
702	411 044 8004	SCR PAN+SW 2X8MM, SLED MOTOR FIX
703	614 237 7024	SHAFT,PICK-UP RAIL
704	614 237 7093	GEAR,SLED RETARD GEAR 1
705	614 237 7109	GEAR,SLED RETARD GEAR 2
706	614 237 7116	GEAR,SLED
707	412 047 3904	SPECIAL SCREW 2X8MM, SLED GEAR FIX
708	645 006 7983	PICKUP,LASER
709	645 009 9960	FLEXIBLE FLAT CABLE,13P, PICK-UP
710	614 262 2599	GEAR,RACK PICK-UP RACK GEAR
711	614 238 6934	SPRING,COMP,PICK-UP RACK GEAR
712	411 152 4301	SCR S-TPG PAN PCS 1.7X6MM, PICK RACK GEAR FIX
722	645 007 7814	ASSY,MOTOR CD-SLED
	614 270 2543	ASSY,CONNECTOR-S,6P, BASE MECHANISM

BASE MECHANISM P.W.BOARD ASSY

Ref. No.	Part No.	Description
721	614 254 0664	ASSY,PWB,MOTOR & LIMIT SWITCH
CN001	645 006 0939	PLUG,6P
S001	614 231 4005	SWITCH,LEAF,LIMIT SWITCH

EXPLODED VIEW (TAPE MECHANISM)


TAPE B
TAPE A
101
102
103A
103B
104
105
106
107A
107B
108A
108B
109A
109B
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140A
140B
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158A
158B
159
160
161
162
163
164
165
166
167
168
169
170
171
172

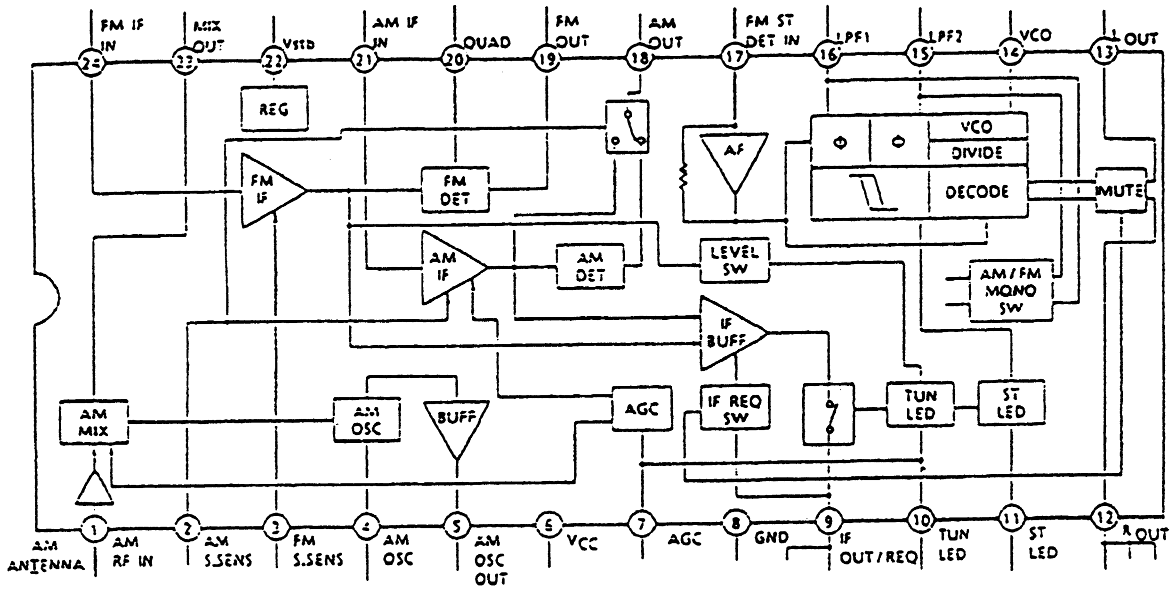
PARTS LIST

TAPE MECHANISM (TM-D9UKTN-SH)

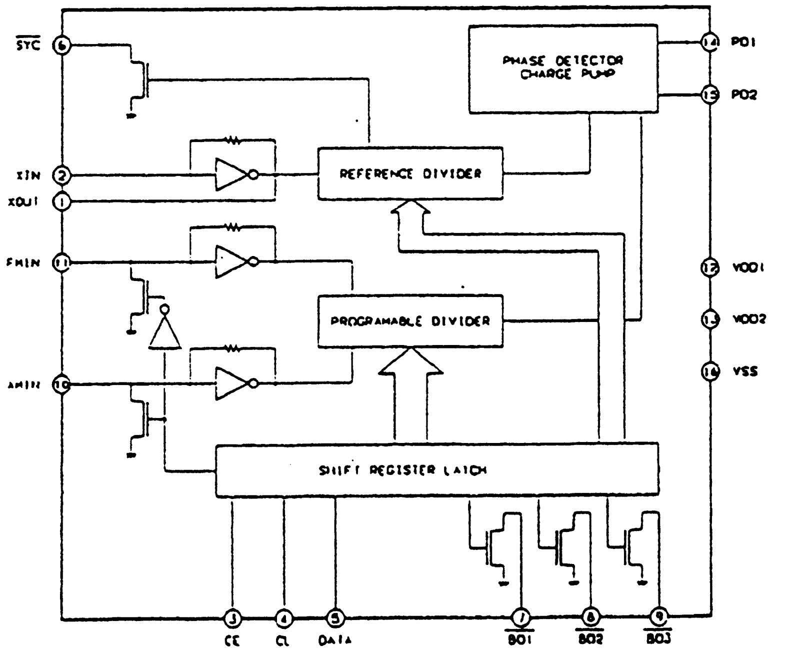
Ref. No.	Part No.	Description
101	645 011 1235	(+)BIND SCREW M2X3
102	645 009 3401	LUG,TAPE HEAD,GROUND
103A	614 249 9931	HEAD,PLAY HEAD
103B	614 249 9931	HEAD,RECORD/PLAY HEAD
104	645 011 1310	AZIMUTH SCREW M2X7
105	645 009 1551	AZIMUTH SPRING
106	645 009 1360	PANEL P SPRING
107A	645 009 1353	HEAD BASE
107B	645 010 9409	HEAD BASE
108A	645 009 1377	HEAD PANEL
108B	645 010 9416	HEAD PANEL
109A	645 011 1228	SCREW M2X6
109B	645 011 1303	(+)(-)CAP SCREW M2X8
110	614 021 7827	MAGNETIC HEAD,ERASING HEAD TAPE B
111	645 009 6891	ERASE HEAD SPRING,TAPE B
112	645 009 1506	SENSING LEVER
113	645 009 1452	M CONTROL SPRING
114	645 009 1513	GEAR PLATE SPRING
115	645 009 1520	GEAR PLATE ASSY
116	645 011 1327	P WASHER CUT 1.45X3.8X0.5MM
117	645 011 1280	P WASHER,2.1X0.4X0.25MM
118	645 009 1612	PINCH ROLLER ARM ASSY
119	645 009 1308	BASE ASSY
120	645 009 1469	PLAY/RECORD STOPPER
121	645 009 1742	SUPPLY REEL ASSY
122	645 009 1575	BACK TENSION SPRING
123	645 009 1735	TAKE UP REEL ASSY
124	645 009 1629	SENSOR,TAKE UP REEL
125	645 009 1285	SWITCH ACTUATOR
126	645 009 1339	EJECT KICK LEVER
127	645 009 3760	PUSH BUTTON ACTUATOR
128	645 011 0757	RECORD BUTTON LEVER,TAPE B
129	645 011 0764	PLAY BUTTON LEVER
130	645 011 0771	REW BUTTON LEVER
131	645 011 0788	FF BUTTON LEVER
132	645 011 0795	STOP/EJECT BUTTON LEVER
133	645 011 0801	PAUSE BUTTON LEVER,TAPE B
134	645 009 1407	PAUSE CONTROL SPRING TAPE B
135	645 011 1211	PAUSE LEVER(E),TAPE B
136	645 009 1391	PAUSE LEVER SPRING,TAPE B
137	645 009 1384	PAUSE STOPPER,TAPE B
138	645 009 1674	RECORD SAFETY LEVER,TAPE B
139	645 009 1414	BUTTON LEVER SPRING(A)
140A	645 011 1839	BUTTON LEVER SPRING(C)
140B	645 009 1421	BUTTON LEVER SPRING(B)
141	645 009 3210	PLAY BUTTON LEVER SPRING
142	645 009 1568	FF GEAR
143	645 011 1075	PACK SPRING
144	645 011 1242	C TAPP SCREW M2X3
145	645 009 1346	CHASSIS ASSY
146	645 011 1297	P TAPP BIND SCREW M2X5
147	645 009 1476	RECORD BUTTON LEVER SPRING TAPE B
148	645 009 1445	PAUSE LEVER SPRING,TAPE B
149	645 011 2478	CAMERA,TAPP SCREW M2X4.5
150	645 010 9560	LEAF SWITCH,PLAY,TAPE A
151	645 009 1544	LEAF SWITCH,MOTOR POWER
152	645 009 1438	EJECT ACTUATOR SPRING
153	645 009 1490	CAM GEAR
154	645 011 1273	P WASHER CUT 1.2X3.8X0.3MM
155	645 011 1136	RF CLUTCH ASSY
156	645 009 1766	RF BELT
157	645 009 2626	P WASHER 2.0X3.5X0.3MM
158A	645 011 1167	FLYWHEEL ASSY
158B	645 009 3227	FLYWHEEL ASSY
159	645 011 1150	MAIN BELT
160	645 010 9423	E SLIDE LEVER
161	645 011 1044	MOTOR COLLER SCREW
162	645 011 1037	MOTOR RUBBER
163	645 011 1259	C TAPP SCREW M2X4
164	645 011 1198	ANTI VIBRATION FELT MAT
165	645 011 1181	MOTOR BRACKET
166	614 276 2417	ASSY,MOTOR
167	645 011 1174	P KICK LEVER(B)
168	645 009 2435	COLLAR(B)
169	645 011 1266	C TAPP SCREW M2X6
170	645 011 1068	P KICK LEVER(A)
171	645 011 1051	P KICK LEVER SPRING
172	645 009 2428	PK COLLAR SCREW(A)

IC BLOCK DIAGRAM & DESCRIPTION

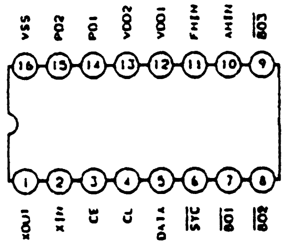
IC231 TA2057 (AM/FM IF & FM MPX)


FM IF IN
MIX OUT
VSTD
AM IF IN
QUAD
FM OUT
AM OUT
FM ST DET IN
LPF1
LPF2
VCO
L OUT
REG
FM IF
FM DET
AF
VCO
DIVIDE
DECODE
MUTE
AM IF
AM DET
LEVEL SW
AM/FM MONO SW
IF BUFF
AM MIX
AM OSC
BUFF
AGC
IF REQ SW
TUN LED
ST LED
AM ANTENNA
AM RF IN
AM S.SENS
FM S.SENS
AM OSC
AM OSC OUT
VCC
AGC
GND
IF OUT/REQ
TUN LED
ST LED
R OUT
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

IC245 LM7001 (PLL SYNTHSIZER)

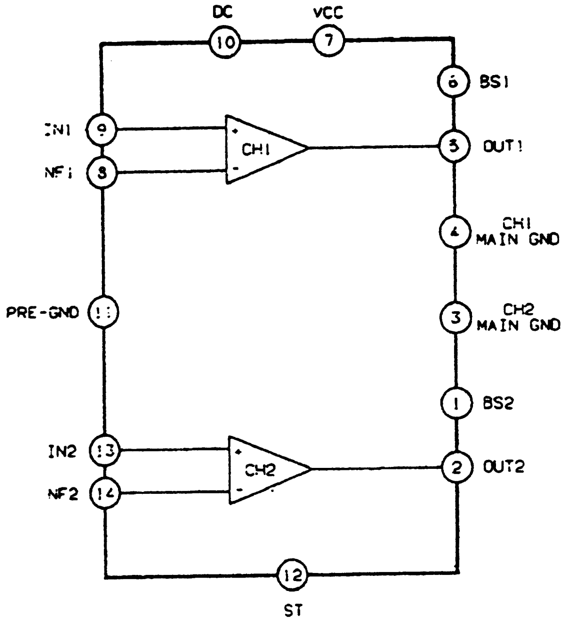

STC
XIN
XOUT
FMIN
AMIN
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
PROGRAMABLE DIVIDER
SHIFT REGISTER LATCH
PO1
PO2
VDD1
VDD2
VSS
CE
CL
DATA
BO1
BO2
BO3
6
2
1
11
10
14
15
12
13
16
3
4
5
7
8
9

$\overline{\text{STC}}$	, CLOCK CONTROLLER (400HZ)
XIN, XOUT	, XTAL OSC (7.2MHZ)
FMIN, AMIN	, LOCAL OSCILLATION SIGNAL INPUT
CD, CL, DATA	, DATA INPUT
$\overline{\text{BO1}}$ $\overline{\text{BO2}}$ $\overline{\text{BO3}}$	, BAND DATA OUTPUT
VDD1 VDD2 VSS	, POWER SUPPLY (VDD2 IS BACK-UP BATTERY)
PO1, PO2	, CHARGE PUMP OUTPUT

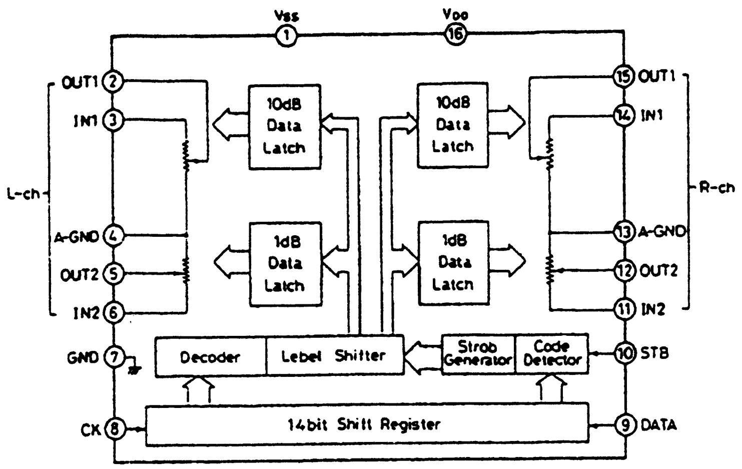

VSS
PO2
PO1
VDD2
VDD1
FMIN
AMIN
BO3
16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8
XOUT
XIN
CE
CL
DATA
STC
BO1
BO2

IC BLOCK DIAGRAM & DESCRIPTION

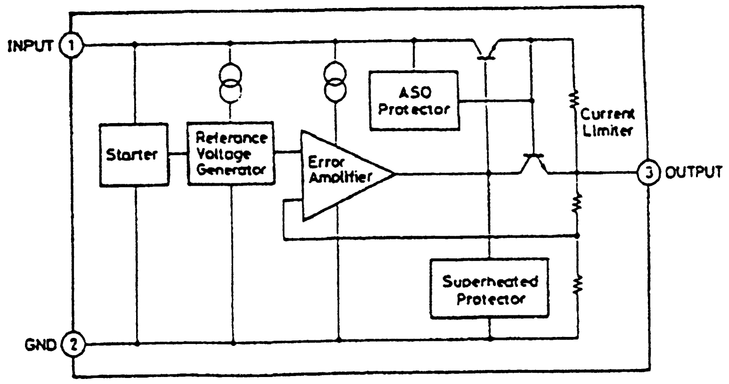
IC401 LA4450 (POWER AMP.)


DC
VCC
10
7
6
BS1
IN1
9
NF1
8
CH1
5
OUT1
4
CH1 MAIN GND
PRE-GND
11
3
CH2 MAIN GND
1
BS2
IN2
13
NF2
14
CH2
2
OUT2
12
ST

IC402 TC9213P (VOLUME CONTROL)


Vss
VDD
1
16
OUT1
IN1
L-ch
A-GND
OUT2
IN2
GND
CK
10dB Data Latch
1dB Data Latch
10dB Data Latch
1dB Data Latch
Decoder
Lebel Shifter
Strob Generator
Code Detector
14bit Shift Register
OUT1
IN1
R-ch
A-GND
OUT2
IN2
STB
DATA
2
3
4
5
6
7
8
15
14
13
12
11
10
9

IC404 µPC78M05, L78M05 or NJM7805FA (REGULATOR)

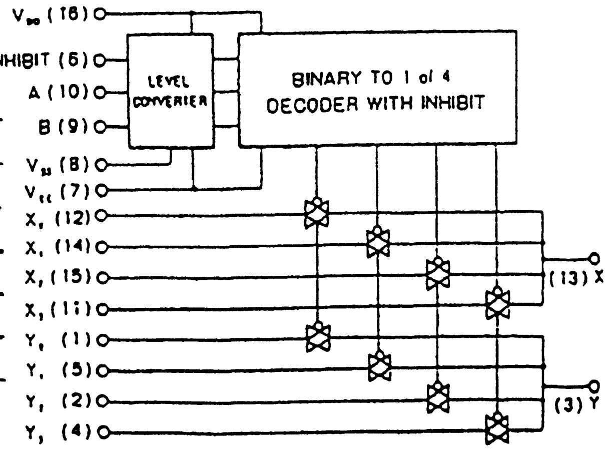

INPUT
1
Starter
Referance Voltage Generator
ASO Protector
Error Amplifier
Current Limiter
3
OUTPUT
Superheated Protector
GND
2

IC405 TC4052BP (FUNCTION)

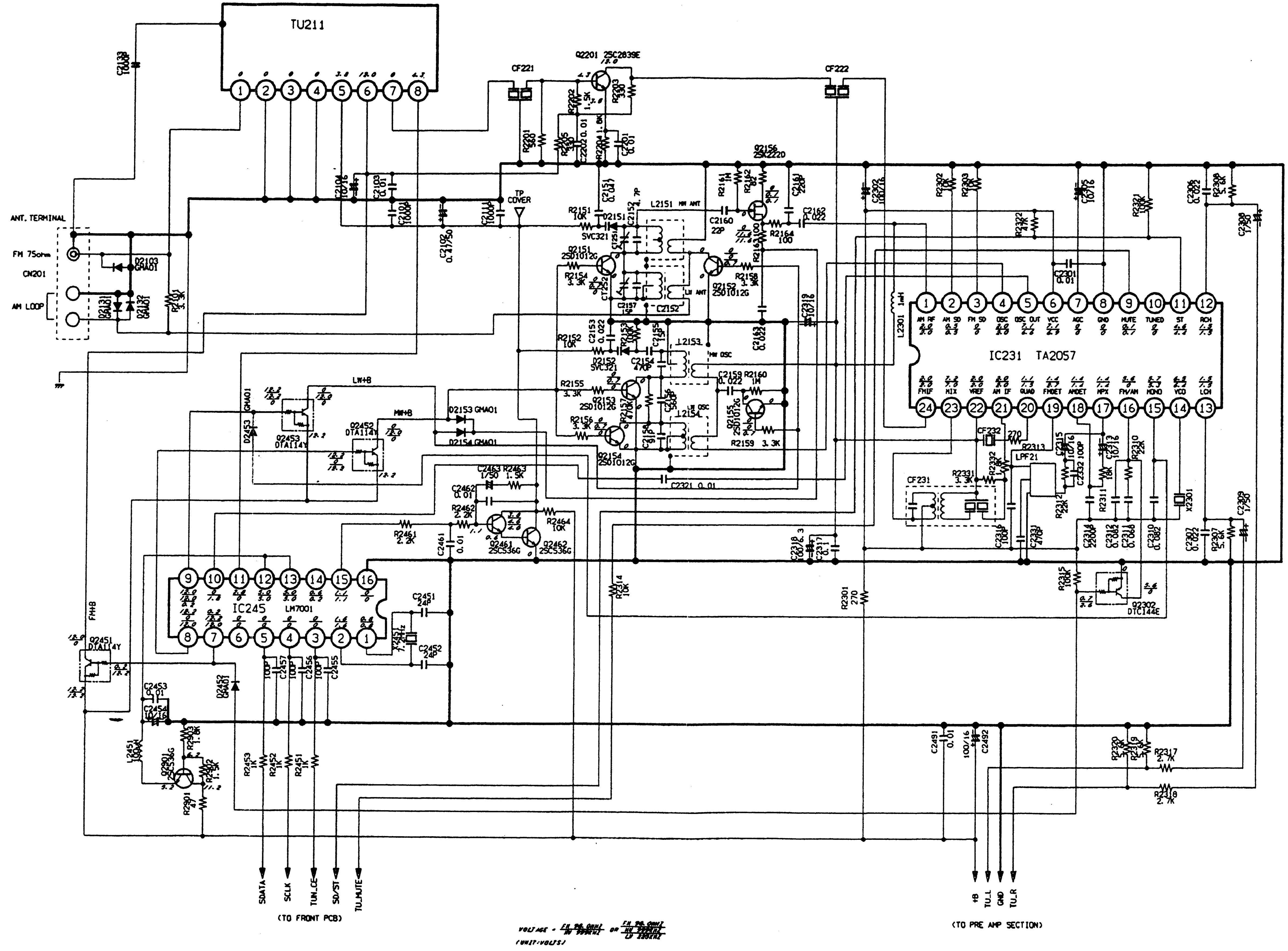
Truth Table

INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

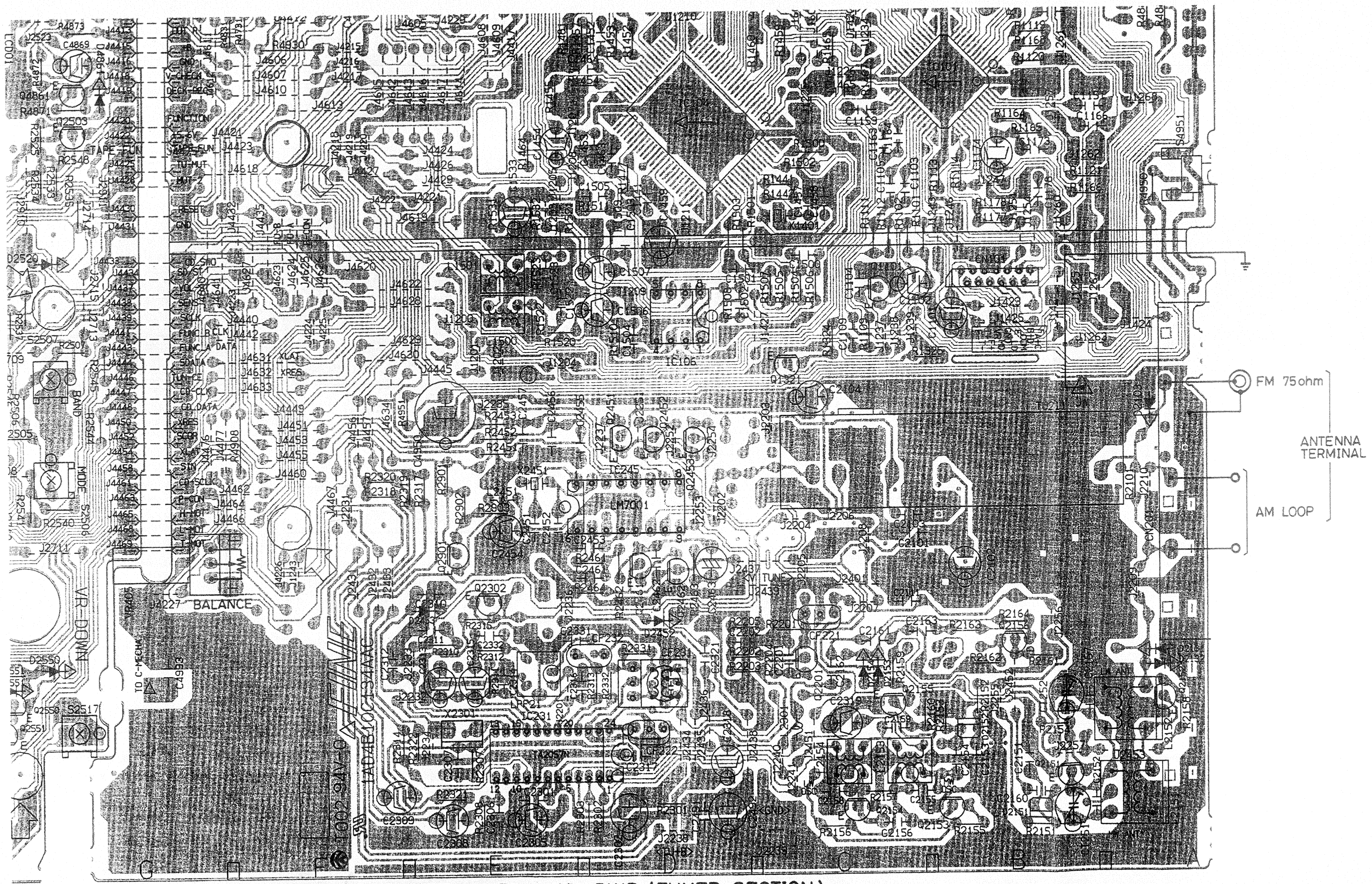
X : Don't Care


V_{DD} (16)
INHIBIT (6)
A (10)
B (9)
V_{SS} (8)
V_{EE} (7)
X_0 (12)
X_1 (14)
X_2 (15)
X_3 (11)
Y_0 (1)
Y_1 (5)
Y_2 (2)
Y_3 (4)
LEVEL CONVERTER
BINARY TO 1 of 4 DECODER WITH INHIBIT
(13) X
(3) Y

SCHEMATIC DIAGRAM (TUNER)

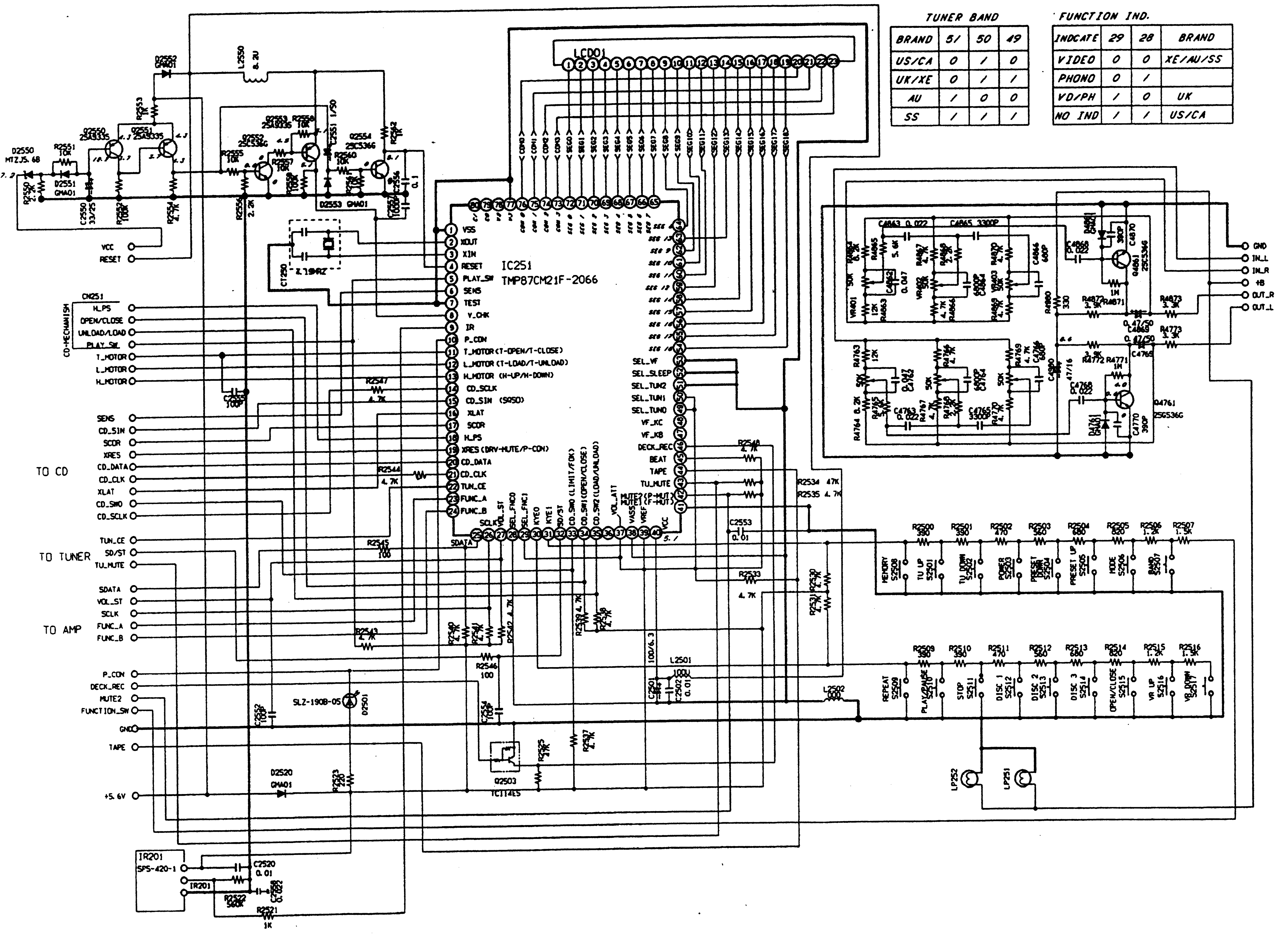

TU211
ANT. TERMINAL
FM 75ohm
CN201
AM LOOP
CF221
CF222
Q2201 2SC2839E
IC231 TA2057
AM RF
AM SD
FM SD
OSC
OSC OUT
VCC
AGC
GND
MUTE
TUNED
ST
RCH
FMIF
MIX
VREF
AM IF
QUAD
FMDET
AMDET
MPX
FM/AM
MONO
VB
LCH
IC245 LM7001
L2151 MW ANT
L2152 LW ANT
L2153 MW OSC
L2154 LW OSC
LW+B
MW+B
FM+B
TP COVER
CF231
CF232
LPF21
X2301
Q2302 DTC144E
Q2451 DTA114Y
Q2452 DTA114Y
Q2453 DTA114Y
Q2461 2SC536G
Q2462 2SC536G
Q2901 2SC536G
SDATA
SCLK
TUN_CE
SD/ST
TU_MUTE
(TO FRONT PCB)
+B
TU_L
GND
TU_R
(TO PRE AMP SECTION)

WIRING DIAGRAM (TUNER)


FM 75ohm
ANTENNA TERMINAL
AM LOOP
BALANCE
VR-DOWN
TAPE-FUN
BAND
MODE
LM7001
TO C-MECHA
CD-SNO
SDATA
XLAT
XRES
FUNCTION
RESET
GND

TUNER, AMP & CD P.W.B (TUNER SECTION)

SCHEMATIC DIAGRAM (FRONT)

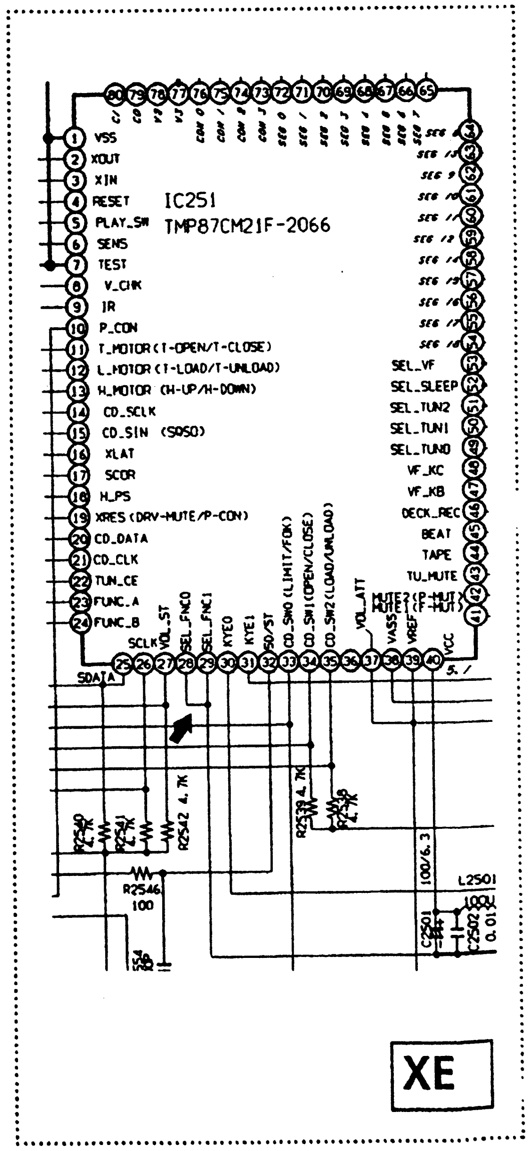

LCD01
IC251
TMP87CM21F-2066
VSS
XOUT
XIN
RESET
PLAY_SW
SENS
TEST
V_CHK
IR
P_CON
T_MOTOR (T-OPEN/T-CLOSE)
L_MOTOR (T-LOAD/T-UNLOAD)
H_MOTOR (H-UP/H-DOWN)
CD_SCLK
CD_SIN (S0SO)
XLAT
SCOR
H_PS
XRES (DRV-MUTE/P-CON)
CD_DATA
CD_CLK
TUN_CE
FUNC_A
FUNC_B
SEL_VF
SEL_SLEEP
SEL_TUN2
SEL_TUN1
SEL_TUNO
VF_KC
VF_KB
DECK_REC
BEAT
TAPE
TU_MUTE
MUTE2 (P-MUT)
MUTE1 (F-MUT)
VASS
VREF
VCC
VOL_ATT
SDATA
SCLK
VOL_ST
SEL_FNC0
SEL_FNC1
KYE0
KYE1
SO/ST
CD_SW0 (LIMIT/FDK)
CD_SW1 (OPEN/CLOSE)
CD_SW2 (LOAD/UNLOAD)
VCC
RESET
CN251
CD-MECHANISM
H_PS
OPEN/CLOSE
UNLOAD/LOAD
PLAY_SW
T_MOTOR
L_MOTOR
H_MOTOR
SENS
CD_SIN
SCOR
XRES
CD_DATA
CD_CLK
XLAT
CD_SWO
CD_SCLK
TO CD
TUN_CE
SD/ST
TU_MUTE
TO TUNER
SDATA
VOL_ST
SCLK
FUNC_A
FUNC_B
TO AMP
P_CON
DECK_REC
MUTE2
FUNCTION_SW
GND
TAPE
+5.6V
IR201
SPS-420-1
D2550 MTZJ5.68
D2551 GMA01
D2552 GMA01
D2553 GMA01
Q2550 2SA933S
Q2551 2SA933S
Q2552 2SC536G
Q2553 2SA933S
Q2554 2SC536G
L2550 8.2U
CT250 4.19MHZ
SLZ-190B-05
D2501
D2520 GMA01
Q2503 TC114ES
L2501 100U
L2502
MEMORY S2508
TU UP S2501
TU DOWN S2502
POWER S2503
PRESET DOWN S2504
PRESET UP S2505
MODE S2506
BAND S2507
REPEAT S2509
PLAY/PAUSE S2510
STOP S2511
DISC 1 S2512
DISC 2 S2513
DISC 3 S2514
OPEN/CLOSE S2515
VR UP S2516
VR DOWN S2517
LP252
LP251
GND
IN_L
IN_R
+B
OUT_R
OUT_L
Q4761 2SC536G
Q4861 2SC536G
VR401

TUNER BAND

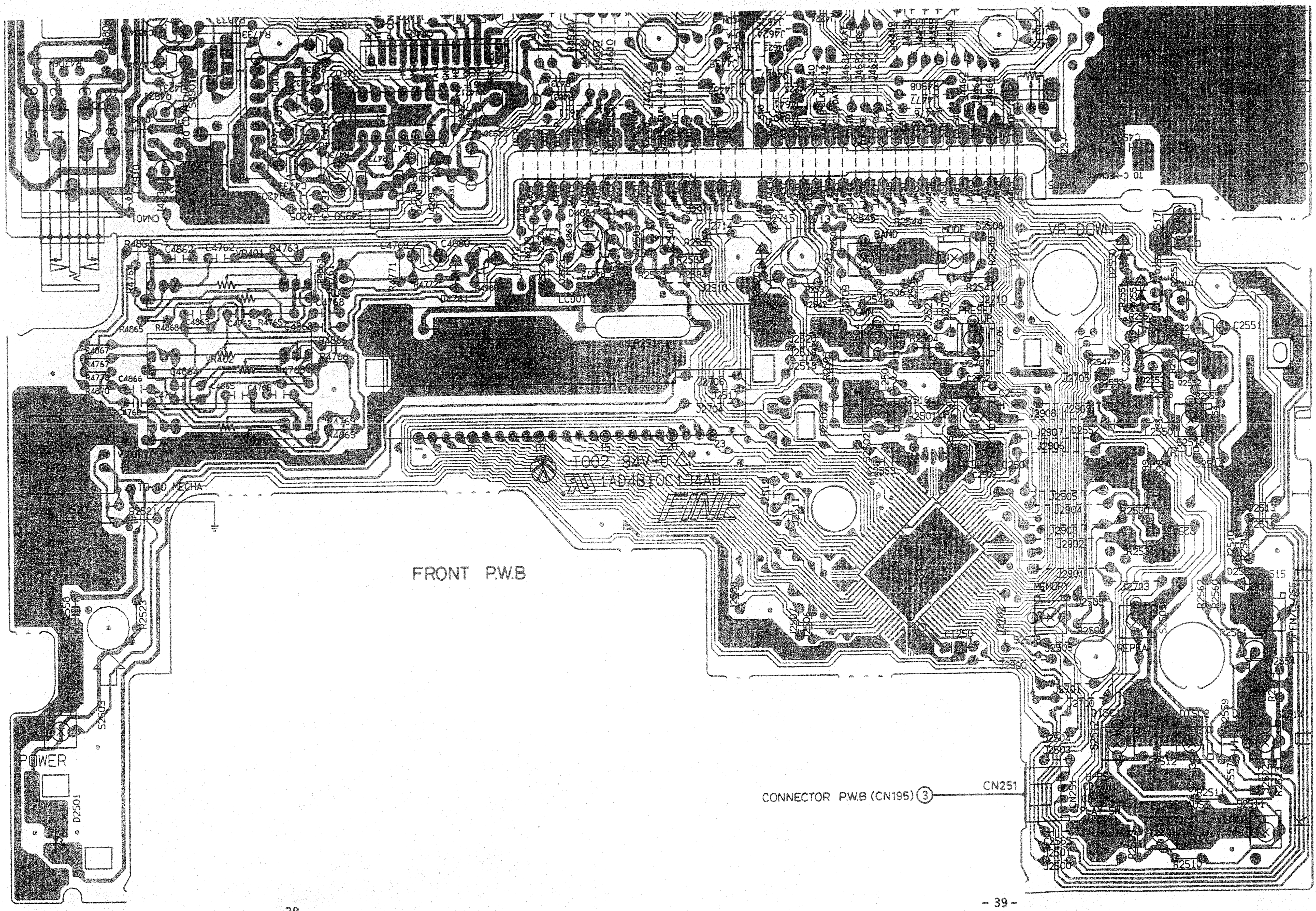
BRAND	51	50	49
US/CA	0	1	0
UK/XE	0	1	1
AU	1	0	0
SS	1	1	1

FUNCTION IND.

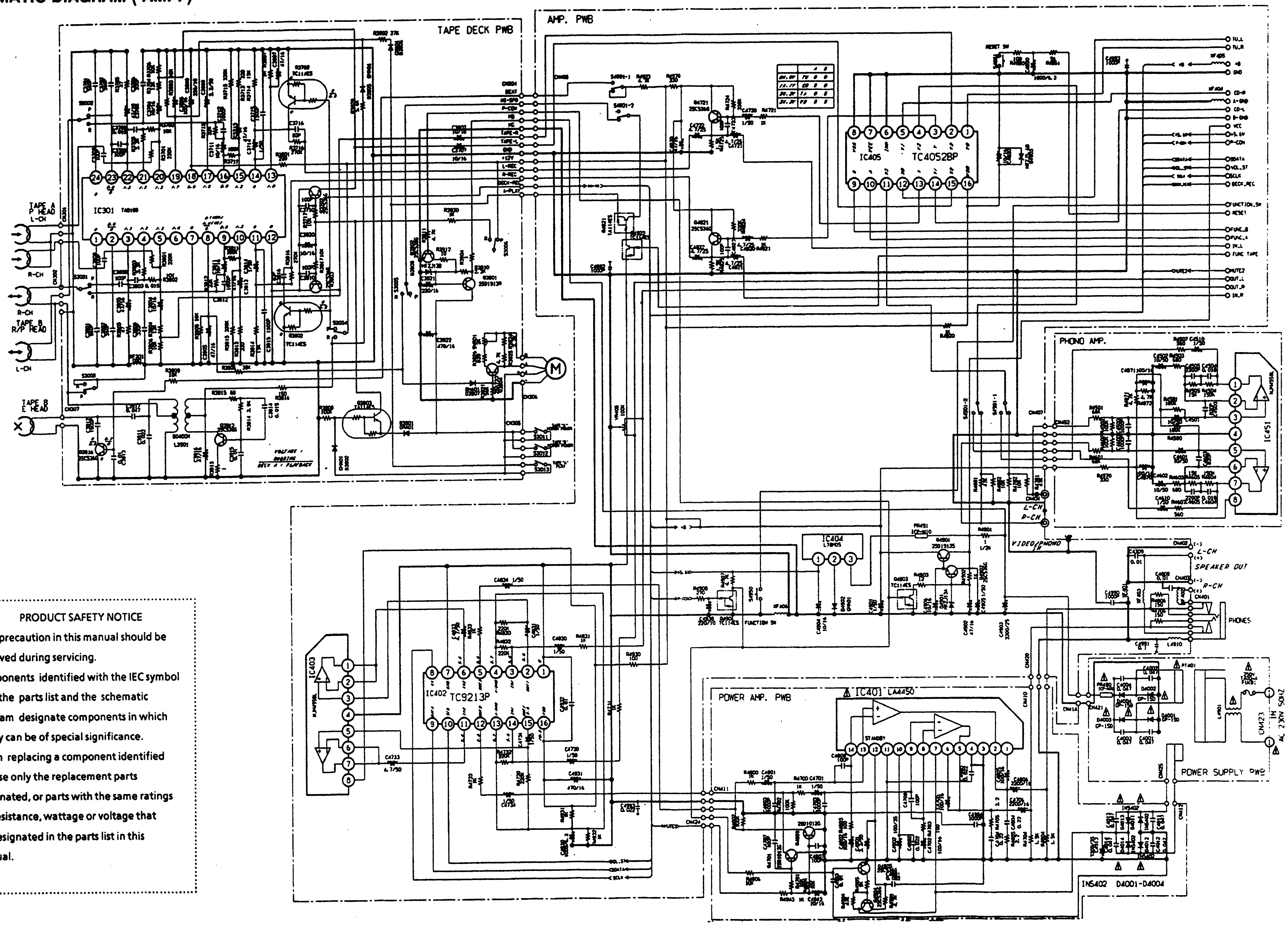
INDCATE	29	28	BRAND
VIDEO	0	0	XE/AU/SS
PHONO	0	1	
VD/PH	1	0	UK
NO IND	1	1	US/CA


IC251
TMP87CM21F-2066
SEL_VF
SEL_SLEEP
SEL_TUN2
SEL_TUN1
SEL_TUNO
L2501
100U
R2546
100
XE

WIRING DIAGRAM (FRONT)


FRONT P.W.B
CONNECTOR P.W.B (CN195) ③
CN251
POWER
VR-DOWN
VR-UP
BAND
MODE
PRESET
MEMORY
REPEAT
OPEN/CLOSE
STOP
DISC1
DISC2
DISC3
TO CD MECHA
CN401
LCD01
VR401
VR402
T002 94V-0
1AD4B10C134AB
FINE

SCHEMATIC DIAGRAM (AMP.)


TAPE DECK PWB
AMP. PWB
IC301
TAPE A P HEAD L-CH
R-CH
R-CH
TAPE B R/P HEAD
L-CH
TAPE B E HEAD
M
IC405 TC4052BP
PHONO AMP.
IC451
L-CH
R-CH
VIDEO/PHONO
IC404 L78M05
FUNCTION SW
L-CH
SPEAKER OUT
R-CH
PHONES
IC403
IC402 TC9213P
POWER AMP. PWB
IC401 LA4450
STANDBY
POWER SUPPLY PWB
CN423
IN AC 230V 50HZ
1N5402 D4001-D4004

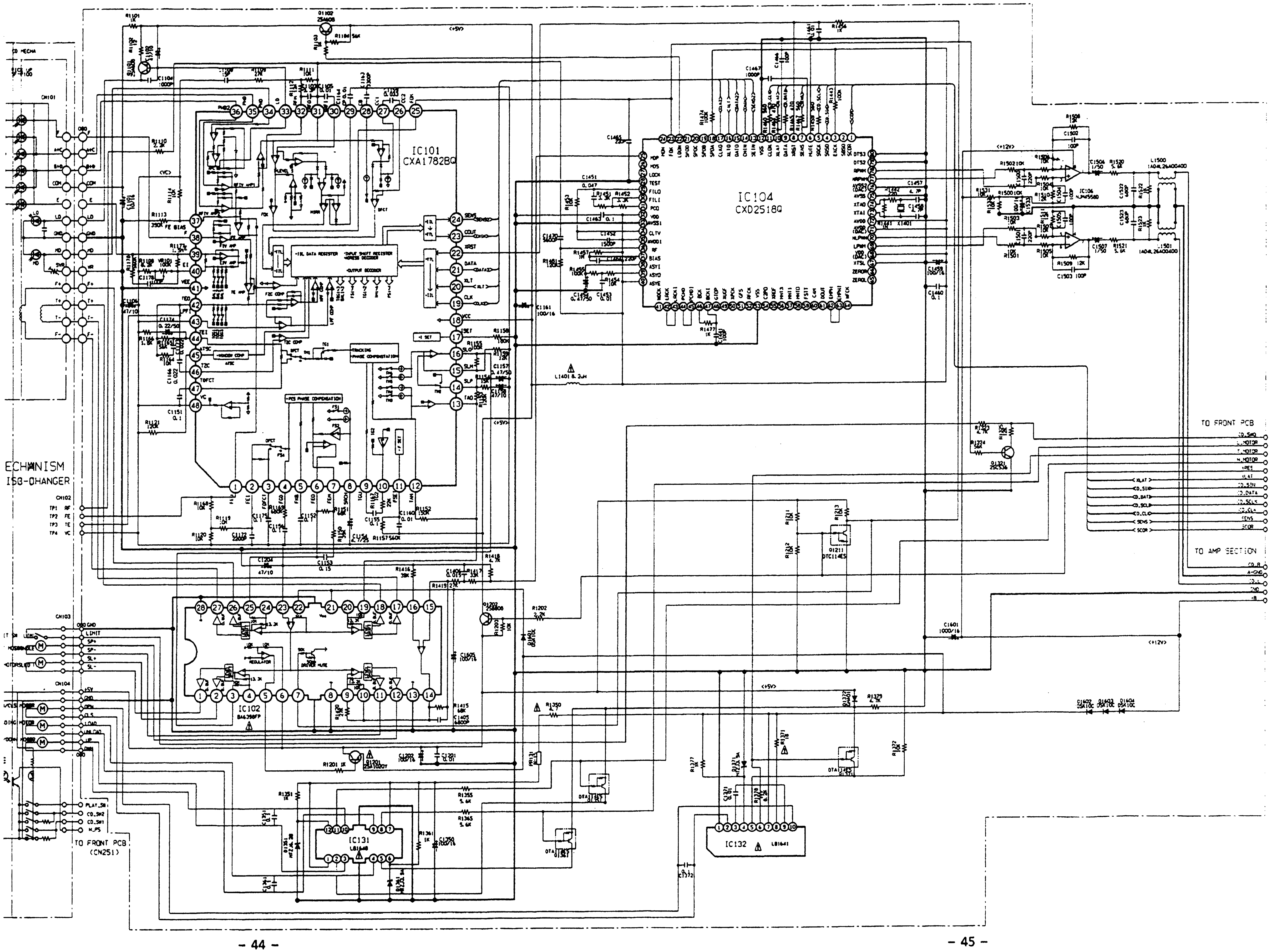
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing.

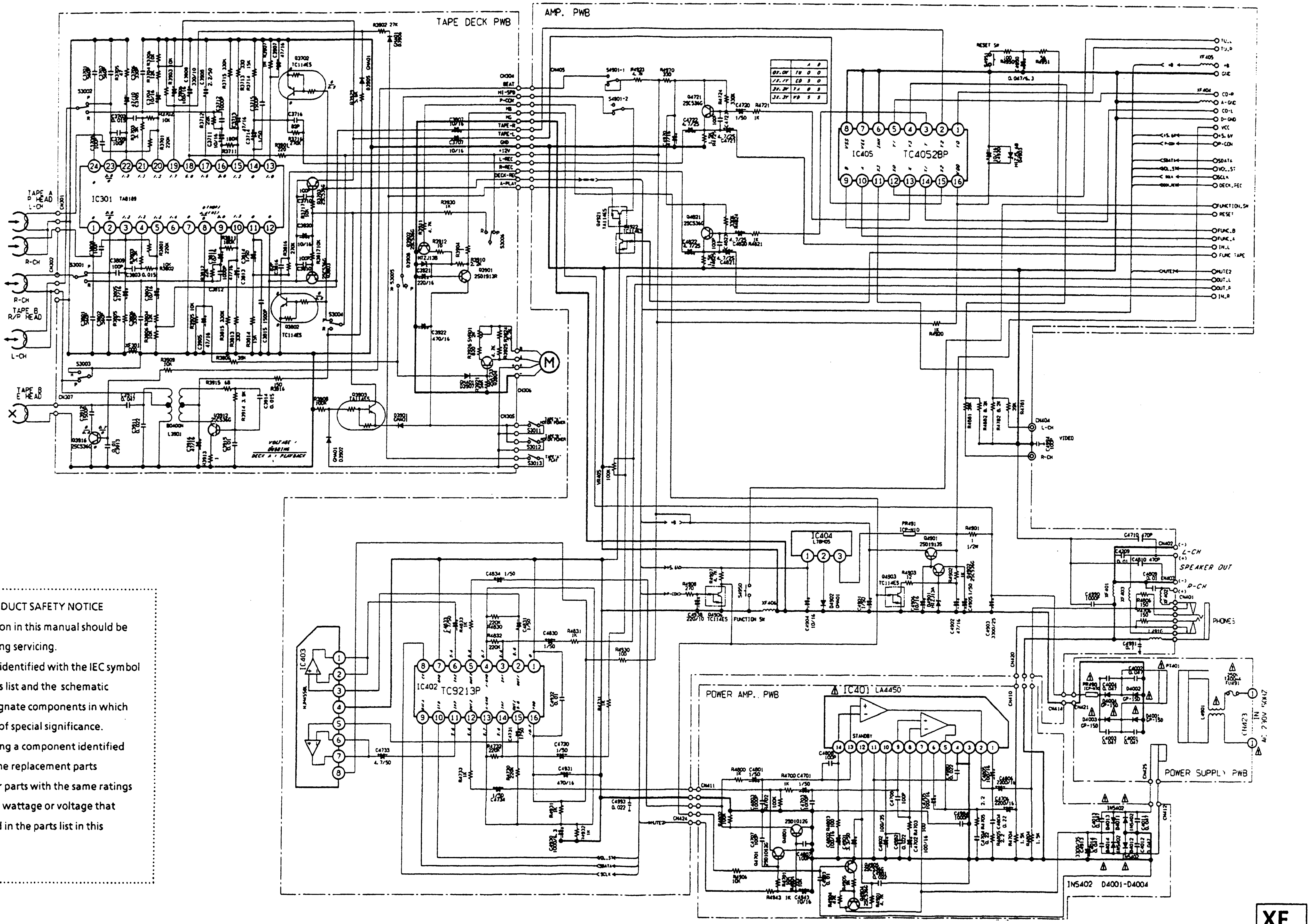
Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance.

When replacing a component identified ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that aredesignated in the parts list in this manual.

SCHEMATIC DIAGRAM (CD)


IC101
CXA1782BQ
IC104
CXD2518Q
IC102
BA6298FP
IC131
LB1648
IC132
LB1641
IC106
NJM4558
CN101
CN102
CN103
CN104
MECHANISM
DISC-CHANGER
TP1 RF
TP2 FE
TP3 TE
TP4 VC
TO FRONT PCB
TO AMP SECTION
TO FRONT PCB
(CN251)
<+5V>
<+12V>
L1401 6.2uH
C1601 1000/16
C1161 100/16
Q1102 2SA608
Q1201 2SA1020Y
Q1211 DTC114ES
L1500
L1501
SENS
COUT
XRST
DATA
XLT
CLK
VCC
ISET
SLO
SLM
SLP
TAO
LIMIT
SP+
SP-
SL+
SL-
PLAY_SW
CD_SW2
CD_SW1
H_PS
CD_SW0
L_MOTOR
T_MOTOR
M_MOTOR
+PES
+LAT
CD_SIN
CD_DATA
CD_SCLK
CD_CLK
SENS
SCOR
CD_R
A-GND
CD_L
GND
+B

SCHEMATIC DIAGRAM (AMP.)


TAPE DECK PWB
AMP. PWB
TAPE A P HEAD L-CH
R-CH
TAPE B R/P HEAD
L-CH
TAPE B E HEAD
IC301 TA8189
CN304
BEAT
HI-SPD
P-CON
TAPE-R
TAPE-L
GND
+12V
L-REC
R-REC
DECK-REC
A-PLAY
CN405
IC405 TC4052BP
M
CN404
L-CH
VIDEO
R-CH
IC404 L78M05
FUNCTION SW
IC403
IC402 TC9213P
IC401 LA4450
POWER AMP. PWB
STANDBY
SPEAKER OUT
L-CH
R-CH
PHONES
POWER SUPPLY PWB
1N5402 D4001-D4004
AC 230V 50Hz
FUNCTION.SW
RESET
MUTE2
VCC
GND

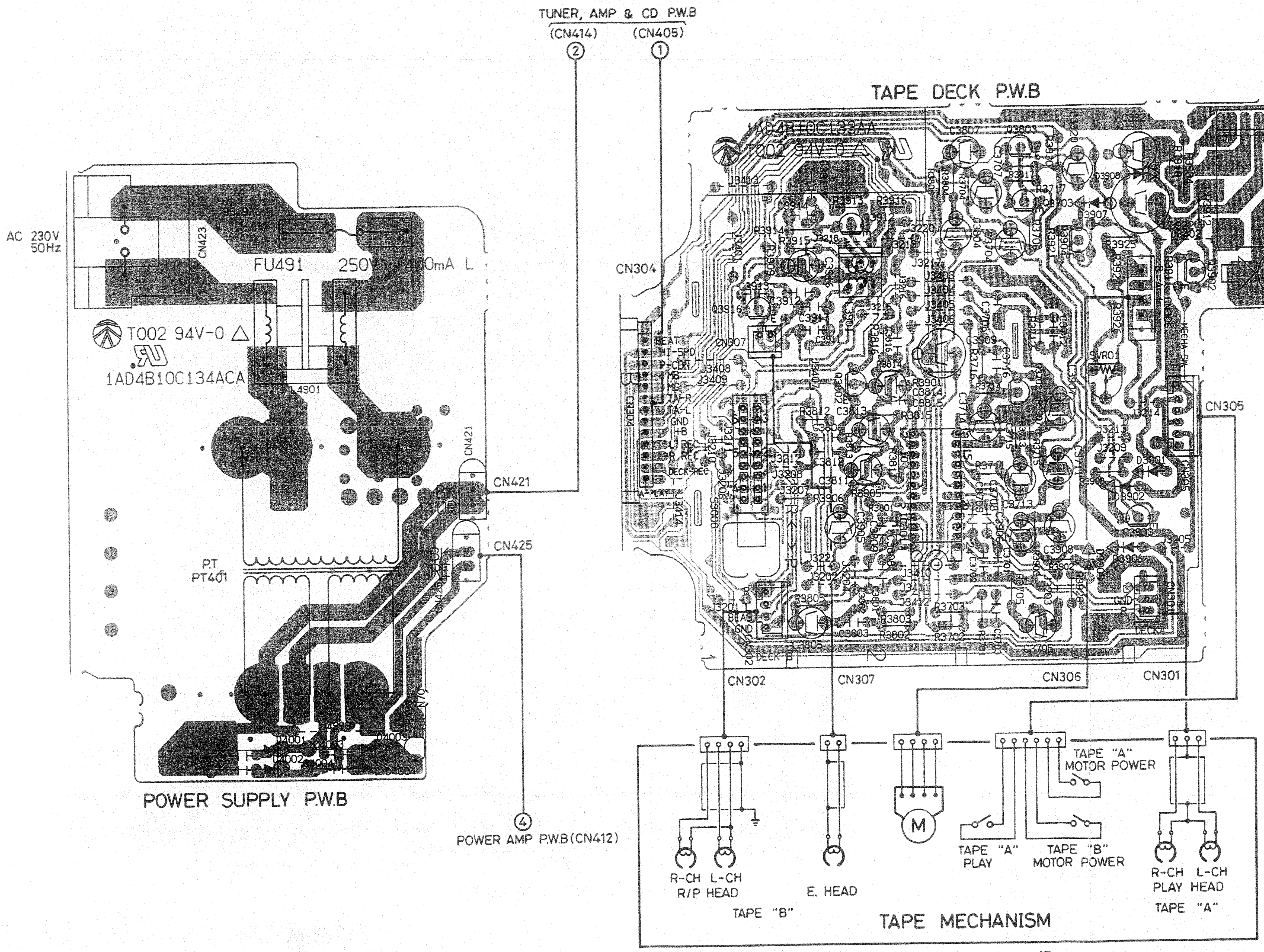
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing.

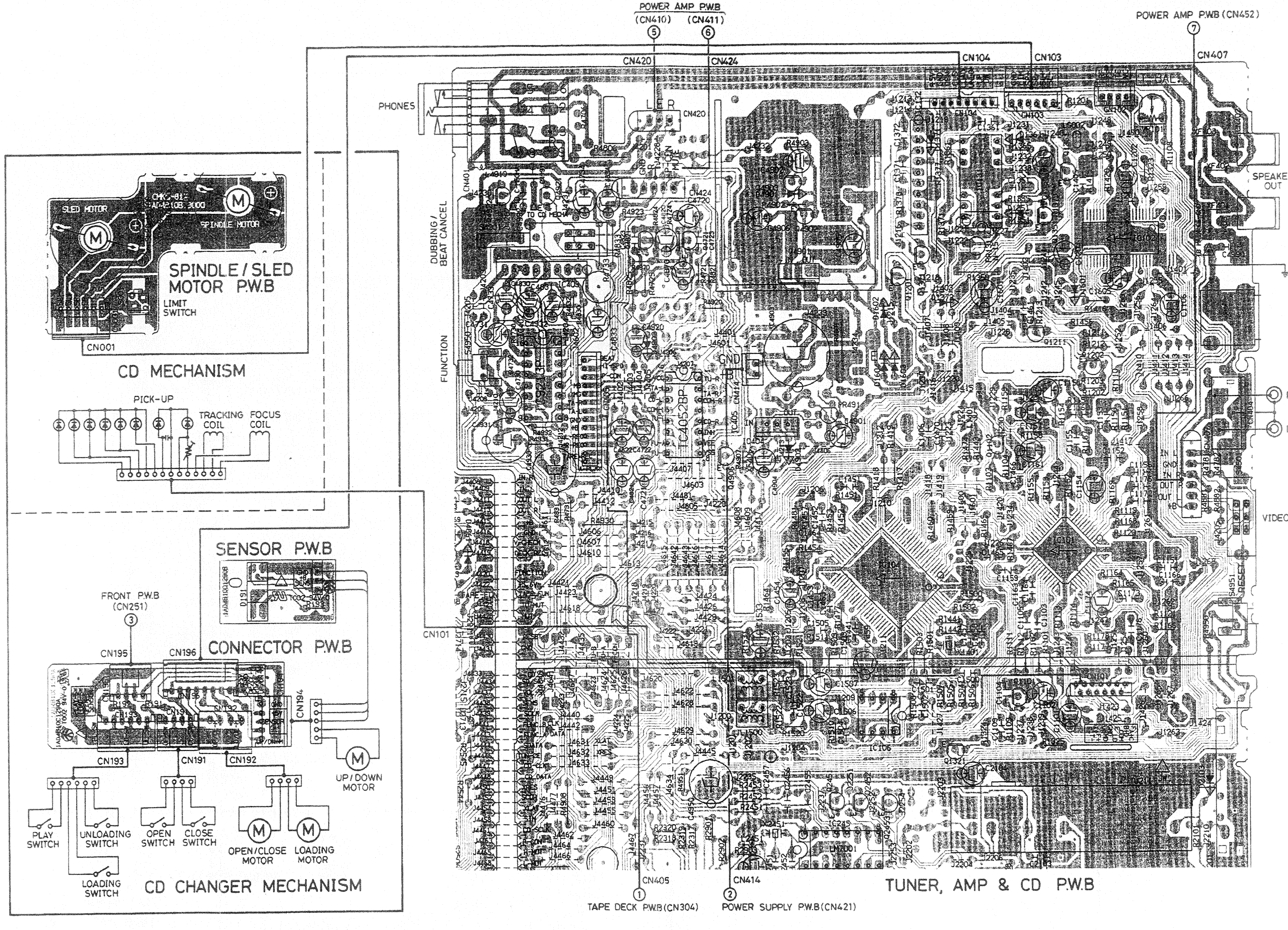
Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance.

When replacing a component identified ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that aredesignated in the parts list in this manual.

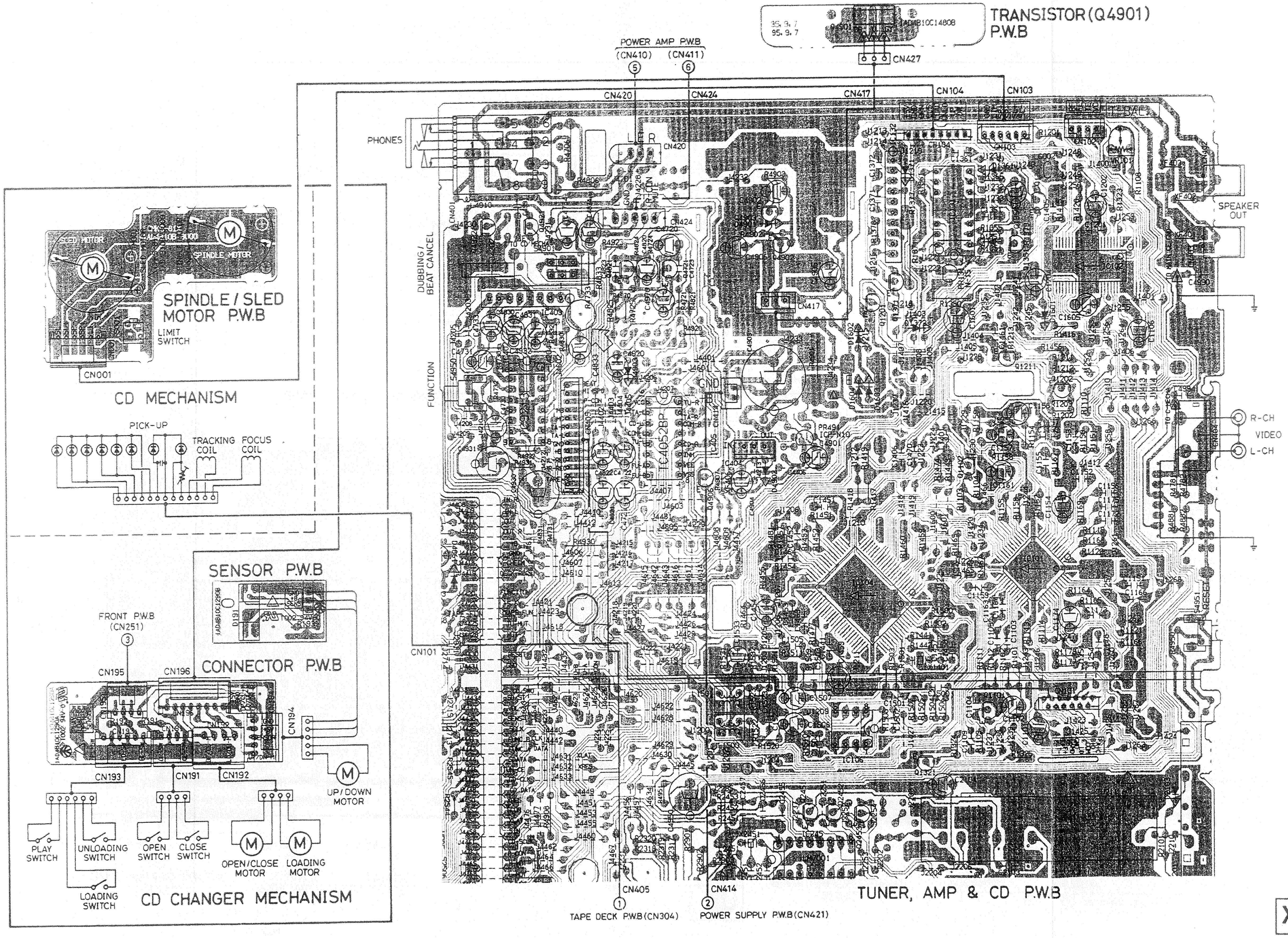
WIRING DIAGRAM (POWER SUPPLY & TAPE DECK)


TUNER, AMP & CD P.W.B
(CN414)
(CN405)
②
①
TAPE DECK P.W.B
1AD4B10C133AA
T002 94V-0
AC 230V
50Hz
CN423
FU491 250V 1400mA L
T002 94V-0
1AD4B10C134ACA
L4901
CN421
CN425
P.T
PT401
D4001
D4002
D4003
D4004
POWER SUPPLY P.W.B
④
POWER AMP P.W.B(CN412)
CN304
BEAT
HI-SPD
CDN
MB
MG
TA-R
TA-L
GND
+B
L REC
R REC
DECK-REC
A-PLAY
CN307
CN305
CN302
CN307
CN306
CN301
BIAS
GND
DECK-B
DECK-A
SVR01
MECHA SW
R-CH
L-CH
R/P HEAD
TAPE "B"
E. HEAD
M
TAPE "A"
PLAY
TAPE "A"
MOTOR POWER
TAPE "B"
MOTOR POWER
R-CH
L-CH
PLAY HEAD
TAPE "A"
TAPE MECHANISM

WIRING DIAGRAM (AMP. & CD)

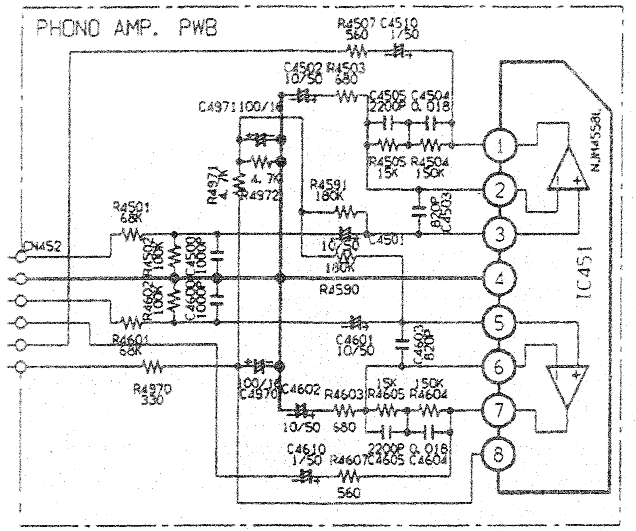

POWER AMP P.W.B
(CN410) (CN411)
⑤ ⑥
POWER AMP P.W.B (CN452)
⑦
CN420
CN424
CN104
CN103
CN407
PHONES
DUBBING / BEAT CANCEL
FUNCTION
SPEAKER OUT
R-CH
VIDEO / PHONO
L-CH
VIDEO / PHONO
SLED MOTOR
SPINDLE MOTOR
SPINDLE / SLED MOTOR P.W.B
LIMIT SWITCH
CN001
CD MECHANISM
PICK-UP
TRACKING COIL
FOCUS COIL
SENSOR P.W.B
FRONT P.W.B (CN251)
③
CN195
CN196
CONNECTOR P.W.B
CN194
CN193
CN191
CN192
UP / DOWN MOTOR
PLAY SWITCH
UNLOADING SWITCH
OPEN SWITCH
CLOSE SWITCH
OPEN/CLOSE MOTOR
LOADING MOTOR
LOADING SWITCH
CD CHANGER MECHANISM
CN101
IC4052BP
CN405
CN414
①
TAPE DECK P.W.B (CN304)
②
POWER SUPPLY P.W.B (CN421)
TUNER, AMP & CD P.W.B

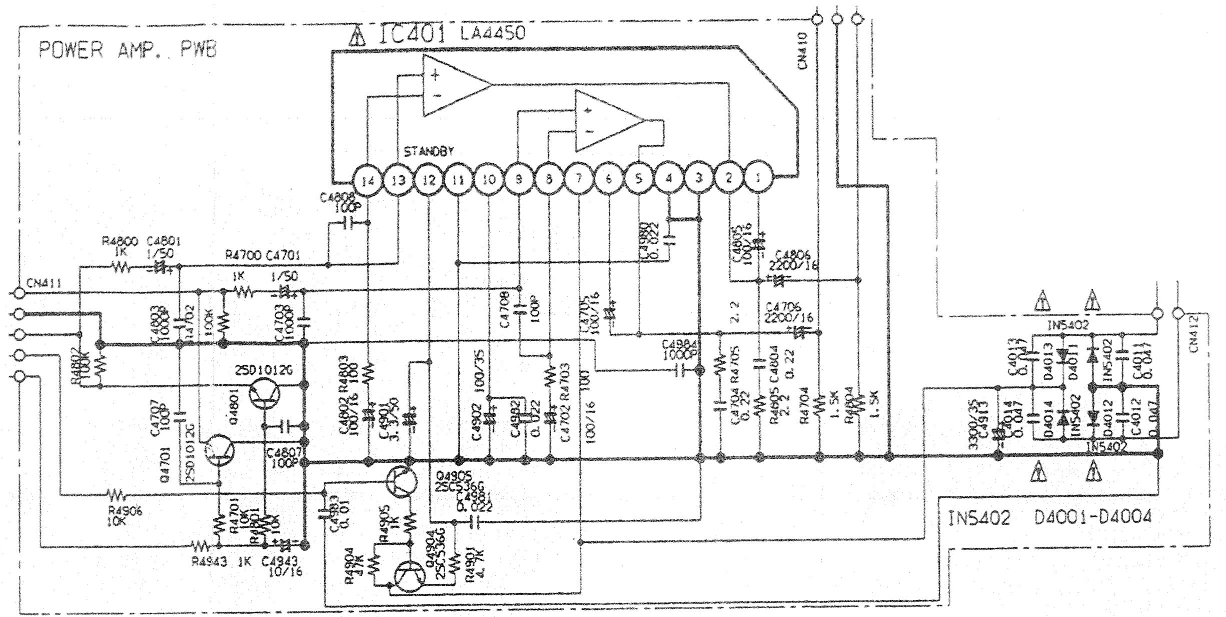
WIRING DIAGRAM (AMP. & CD)

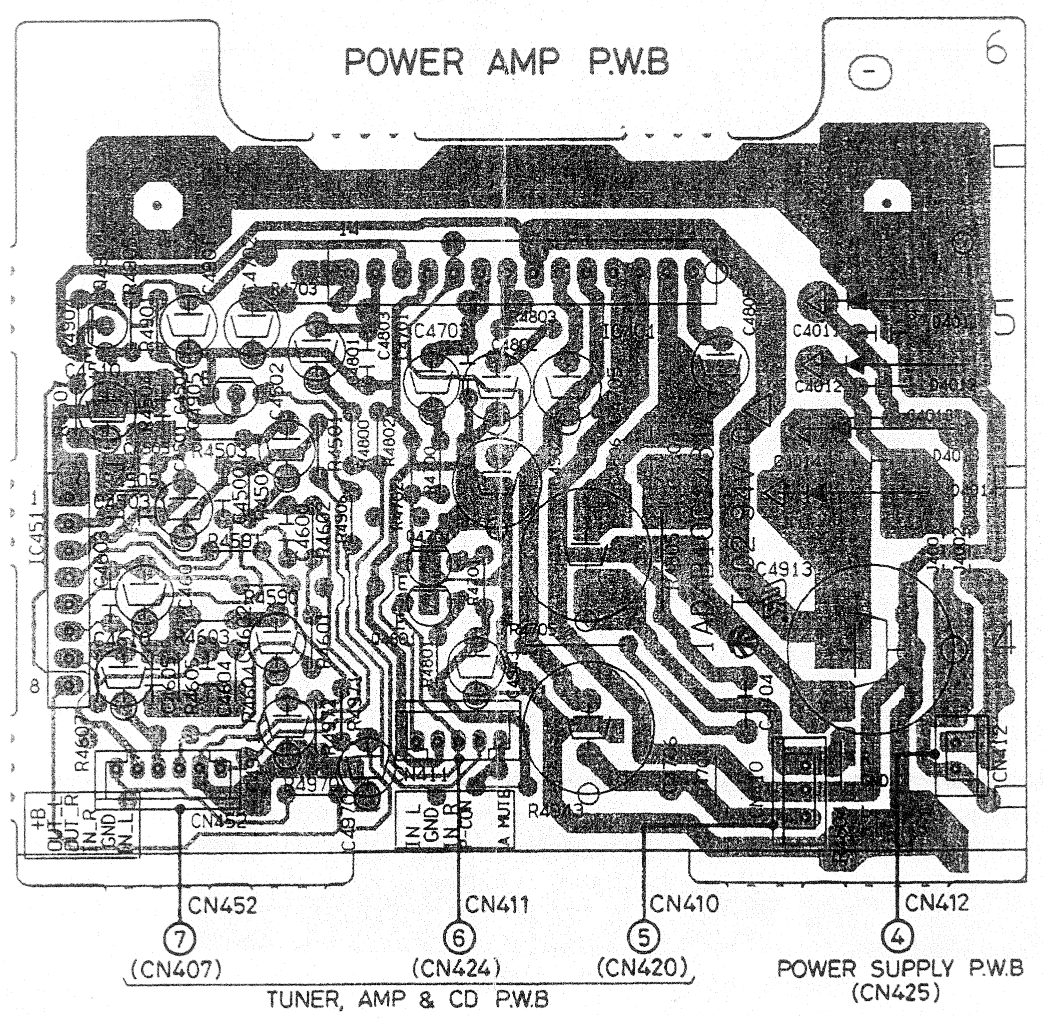

TRANSISTOR (Q4901) P.W.B
CN427
POWER AMP P.W.B
(CN410)
(CN411)
⑤
⑥
CN420
CN424
CN417
CN104
CN103
PHONES
DUBBING / BEAT CANCEL
FUNCTION
SPEAKER OUT
R-CH
VIDEO
L-CH
TC4052BP
GND
SLED MOTOR
SPINDLE MOTOR
SPINDLE / SLED MOTOR P.W.B
LIMIT SWITCH
CN001
CD MECHANISM
PICK-UP
TRACKING COIL
FOCUS COIL
SENSOR P.W.B
FRONT P.W.B (CN251)
③
CN195
CN196
CONNECTOR P.W.B
CN194
CN193
CN191
CN192
UP/DOWN MOTOR
PLAY SWITCH
UNLOADING SWITCH
OPEN SWITCH
CLOSE SWITCH
OPEN/CLOSE MOTOR
LOADING MOTOR
LOADING SWITCH
CD CHANGER MECHANISM
CN101
CN405
①
TAPE DECK P.W.B (CN304)
CN414
②
POWER SUPPLY P.W.B (CN421)
TUNER, AMP & CD P.W.B

XE

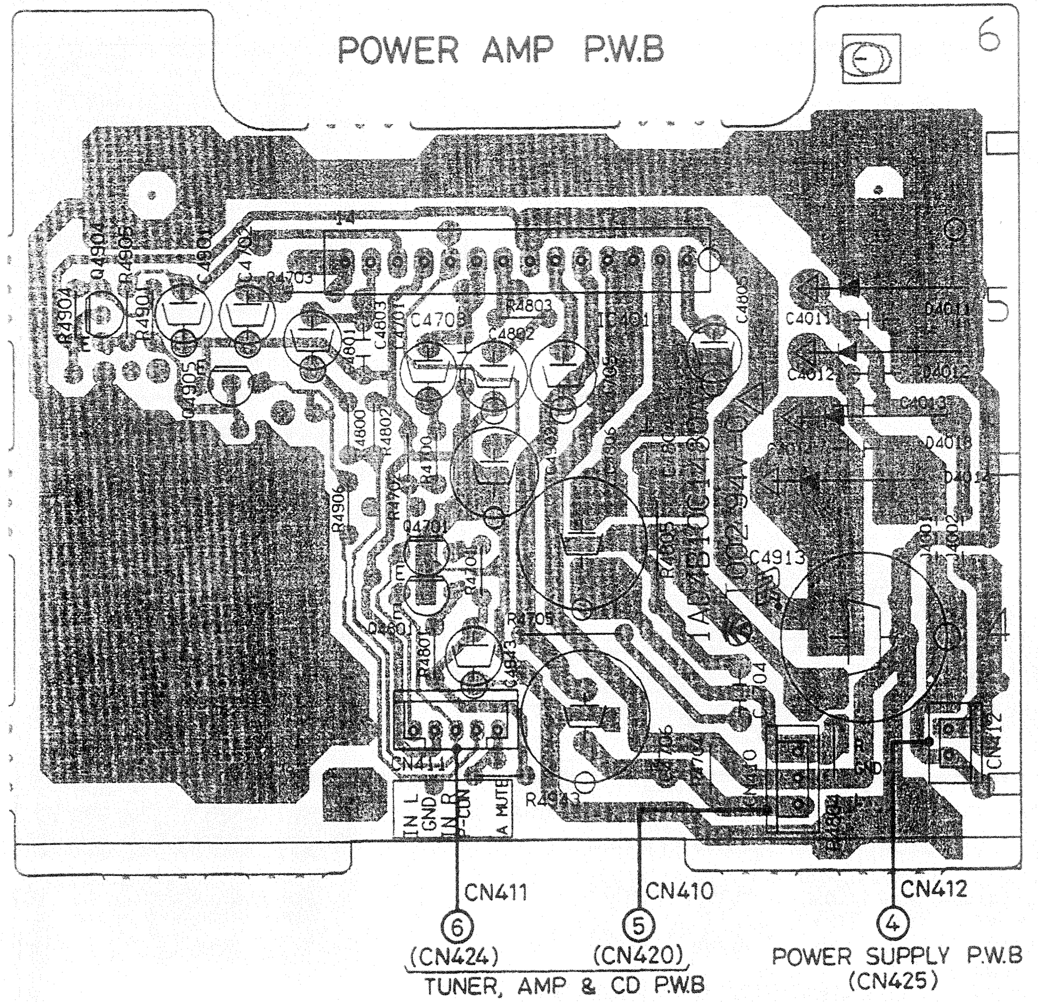
PHONO AMP.
(only UK)


PHONO AMP. PWB
CN452
IC451
NJM4558L
R4507 C4510
R4502 R4503
C4505 C4504
R4505 R4504
R4591
R4501 68K
R4601 68K
R4970 330
R4590
C4601
C4602 R4603 R4605 R4604
C4610 R4607 C4605 C4604
560


POWER AMP. PWB
IC401 LA4450
STANDBY
CN410
CN411
CN412
R4800 1K
C4801 1/50
R4700 1K
C4701 1/50
2SD1012G
Q4801
Q4701
Q4904 2SC536G
Q4905 2SC536G
R4906 10K
R4943 1K
C4943 10/16
IN5402 D4001-D4004
C4806 2200/16
C4706 2200/16
C4913 3300/35


POWER AMP P.W.B
6
5
4
1
8
IC451
+B
OUT-L
OUT-R
GND
IN-R
IN-L
CN452
IN L
GND
IN R
P-CON
A MUTE
CN411
CN410
CN412
R4943
C4913
⑦
(CN407)
⑥
(CN424)
⑤
(CN420)
TUNER, AMP & CD P.W.B
④
POWER SUPPLY P.W.B
(CN425)

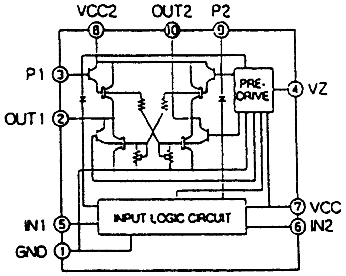
UK


POWER AMP P.W.B
6
5
4
IN L
GND
IN R
P-CON
A MUTE
CN411
CN410
CN412
R4943
C4913
⑥
(CN424)
⑤
(CN420)
TUNER, AMP & CD P.W.B
④
POWER SUPPLY P.W.B
(CN425)

XE

IC BLOCK DIAGRAM & DESCRIPTION

IC132 LB1641 (RECORD/PLAY SWITCHING)



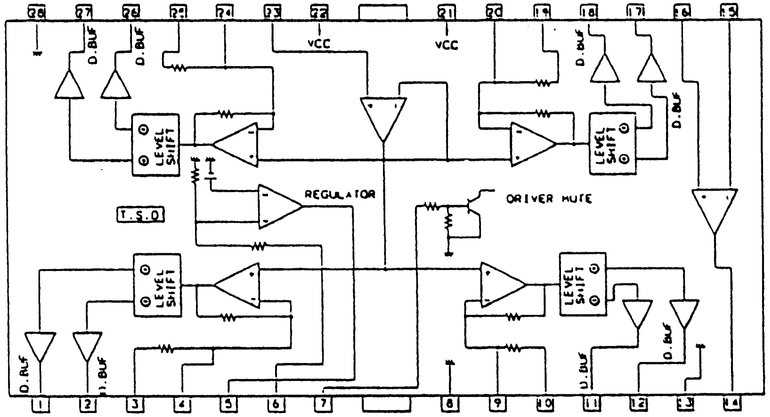
Input		Output		Action
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	Normal(Reverse)Rotary
0	1	0	1	Reverse(Normal)Rotary
1	1	0	0	Brake

IC101 CXA1782BQ (SERVO SIGNAL PROCESSOR)

No.	Name	I / O	Description
1	FEO	O	Focus error amplifier output.
2	FEI	I	Focus error input.
3	FDFCT	I	Capacitor connection pin for detect time constant.
4	FGD	I	Ground this pin through a capacitor when decreasing the focus servo high-frequency
5	FLB	I	External time constant setting pin for increasing the focus servo low frequency.
6	FEO	O	Focus drive output.
7	FEM	I	Focus amplifier negative input.
8	SRCH	I	External time constant setting pin for generating focus servo waveform.
9 10	TGU TG2	I I	External time constant setting pin for switching tracking high-frequency gain.
11	FSET	I	High cut off frequency setting pin for focus and tracking phase compensation amplifier.
12	TAM	I	Tracking amplifier negative input.
13	TAO	O	Tracking drive output.
14	SLP	I	Sled amplifier non-inverted input.
15	SLM	I	Sled amplifier negative input.
16	SLO	O	Sled drive output
17	ISET	I	Setting pin for Focus search, Tracking jump, and Sled kick current.
18	V_{CC}	-	+5.0V
19	CLK	I	Serial data transfer clock input from CPU.
20	XLT	I	Latch input from CPU.
21	DATA	I	Serial data input from CPU.
22	XRST	I	Reset input; resets at Low.
23	C.OUT	O	Track number count signal output.
24	SENS	O	Outputs FZC, DFCT, TZC, gain, balance, and others according to the command from CPU.
25	FOK	O	Focus OK comparator output.
26	CC2	O	Input pin for the DEFECT bottom hold output capacitance-coupled.
27	CC1	I	DEFECT bottom hold output.
28	CB	I	Connection pin for DEFECT bottom hold capacitor.
29	CP	I	Connection pin for MIRR hold capacitor. MIRR comparator non-inversed input.
30	RFI	I	Input pin for the RF summing amplifier output capacitance-coupled.
31	RFO	O	RF summing amplifier output. Eye pattern check point.
32	RFM	I	RF summing amplifier inverted input. The RF amplifier gain is determined by the resistance connected between this pin and RFO pin.
33	LD	O	APC (Auto Power Control) amplifier output.
34	PHD	I	APC (Auto Power Control) amplifier input.
35 36	PHD1 PHD2	I I	RF I-V amplifier inverted input.
37	FEBIAS	I	Bias adjustment of focus error amplifier.
38 39	F E	I I	F I-V and E I-V amplifier inverted input.
40	EI	-	I-V amplifier E gain adjustment.
41	V_{EE}	-	GND
42	TEO	O	Tracking error amplifier output.
43	LPFI	I	Comparator input for balance adjustment.
44	TEI	I	Tracking error input.
45	ATSC	I	Window comparator input for ATSC detection.
46	TZC	!	Tracking zero-cross comparator input.
48	VC	O	$(V_{CC}+V_{EE})$ / 2 DC voltage output.

IC BLOCK DIAGRAM & DESCRIPTION

IC102 BA6398FP (POWER DRIVER)



T.S.D : THERMAL SHUT DOWN   O.BUF : DRIVE BUFFER

No.	NAME	DESCRIPTION
1	CH1-OUT A	DRIVER CH1 (-)
2	CH1-OUT B	DRIVER CH1 (+)
3	CH1-IN A	DRIVER CH1
4	CH1-IN B	NOT USED
5	Tr-B	REGULATOR
6	Vreg OUT	Vreg
7	MUTE	MUTE CONTROL
8	GND	GND
9	CH2-IN B	DRIVER CH2 GAIN
10	CH2-IN A	DRIVER CH2
11	CH2-OUT B	DRIVER CH2 (+)
12	CH2-OUT A	DRIVER CH2 (-)
13	GND	GND
14	OP OUT	OP. AMP
15	OP IN (-)	OP. AMP
16	OP IN (+)	OP. AMP
17	CH3-OUT A	DRIVER CH3 (-)
18	CH3-OUT B	DRIVER CH3 (+)
19	CH3-IN A	DRIVER CH3
20	CH3-IN B	NOT USED
21	VCC	VCC
22	VCC	VCC
23	BIAS IN	BIAS
24	CH4-IN B	NOT USED
25	CH4-IN A	DRIVER CH4
26	CH4-OUT B	DRIVER CH4 (+)
27	CH4-OUT A	DRIVER CH4 (-)
28	GND	GND

IC BLOCK DIAGRAM & DESCRIPTION

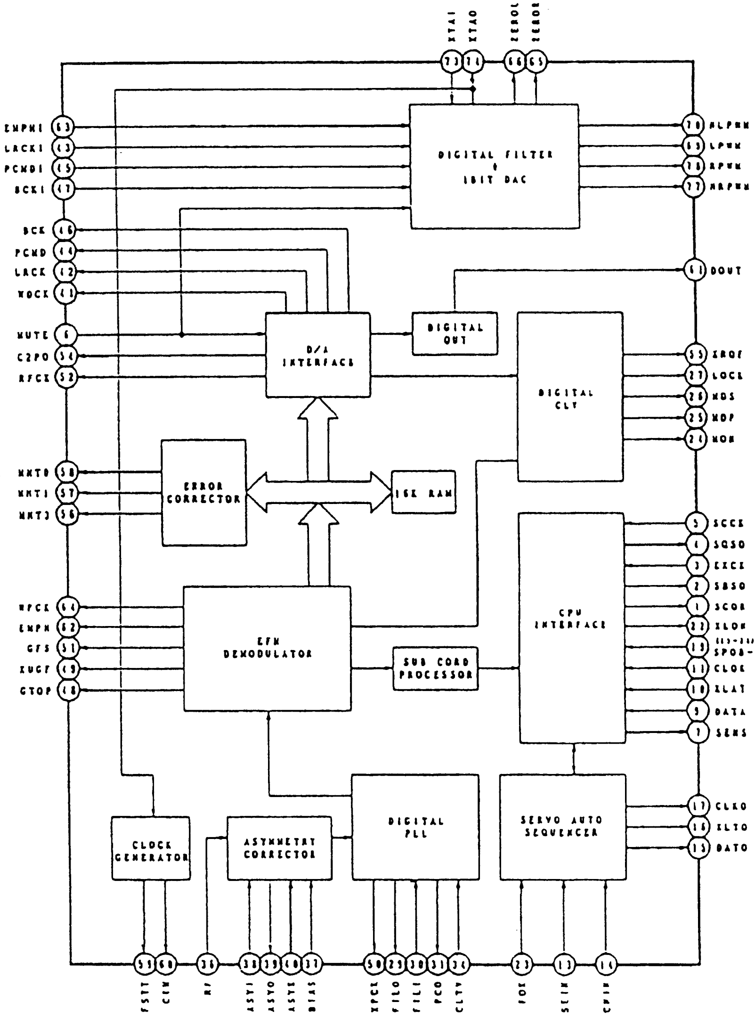
IC104 CXD2518Q (DIGITAL SIGNAL PROCESSOR)

No.	Name	I / O	Description
1	SCOR	O	Turns "H" when sync S0 or S1 is detected.
2	SBSO	O	Serial output of sub-code P ~ W.
3	EXCK	I	Clock input for reading SBSO.
4	SQSO	O	Serial output of SUBQ & SOBIT.
5	SQCK	I	Clock input for reading SQSO.
6	MUTE	I	"H" at muting, "L" at muting cancel.
7	SENS	O	SENS signal output to CPU.
8	XRST	I	System reset, "L" at resetting.
9	DATA	I	Inputs serial data from CPU.
10	XLAT	I	Latches input from CPU. Serial data latches at falling edge.
11	CLOK	I	Inputs serial data transfer clock from CPU.
12	V_{SS}	-	GND.
13	SEIN	I	Inputs SENS signal from SSP.
14	CNIN	I	Inputs track jump count signal
15	DATO	O	Outputs serial data to SSP
16	XLTO	O	Outputs latches to SSP. Serial data latches at falling edge.
17	CLKO	O	Outputs serial data transfer clock to SSP.
18	TEST2	I	Pin for TEST. Normal used state: $V_{DD.}$
19	SPOB	I	Not used
20	SPOC	I	Not used
21	SPOD	I	Not used
22	XLON	O	Interface for extension of M. processor(output)
23	FOK	I	Focus OK signal input pin. Used servo auto sequencer with SENS output.
24	MON	O	ON/OFF control signal for spindle motor.
25	MDP	O	Servo control signal for spindle motor.
26	MDS	O	Not used
27	LOCK	O	Not used
28	TEST	I	GND.
29	FILO	O	Output of filter for master PLL.(Slave = Digital PLL)
30	FILI	I	Inputs to filter for master PLL.
31	PCO	O	Outputs of charge pump for master PLL.
32	V_{DD}	-	Power supply for digital.(+ 5V)
33	AV_{SS1}	-	Power supply for analog.(0V)
34	CLTV	I	VCO control voltage input for master PLL.
35	AV_{DD1}	-	Power supply for analog.(+ 5V)
36	RF	I	EFM signal input.
37	BIAS	I	Inputs constant current for asymmetry correction circuit.
38	ASYI	I	Inputs comparator voltage for asymmetry correction circuit.
39	ASYO	O	EFM fill swing output.("L" = V_{SS}, "H" = V_{DD})
40	ASYE	I	"L" : OFF of asymmetry correction. "H" : ON of asymmetry correction.

No.	Name	I / O	Description
41	WDCK	O	Not used
42	LRCK	O	D/A interface for 48-bit slot. LR clock (f = FS)
43	LRCKI	I	Inputs LR clock to DAC.(48-bit slot)
44	PCMD	O	D/A interface. Serial data(2'SCOMP,MBS first)
45	PCMDI	I	Inputs audio data to DAC.(48-bit slot)
46	BCK	O	D/A interface. Bit clock.
47	BCKI	I	Inputs bit clock to DAC.(48-bit slot)
48	GTOP	O	Not used
49	XUGF	O	Not used
50	XPCK	O	Not used
51	GFS	O	Not used
52	RFCK	O	Not used
53	V_{SS}	-	GND.
54	C2PO	O	Not used
55	XROF	O	Not used
56	MNT3	O	Not used
57	MNT1	O	Not used
58	MNT0	O	Not used
59	FSTT	O	Not used
60	C4M	O	Not used
61	DOUT	O	Not used
62	EMPH	O	Stays "H" for playback disc provided with emphasis or "L" for that without emphasis.
63	EMPHI	I	De-emphasis ON/OFF of DAC. "H" at ON, "L" at OFF.
64	WFCK	O	Not used
65	ZEROL	O	Outputs detection for non-sound data. "H" at detection for non-sound data (L-ch)
66	ZEROR	O	Outputs detection for non-sound data. "H" at detection for non-sound data (R-ch)
67	DTS1	I	Normal used state: "L".
68	V_{DD}	-	Power supply for DAC.
69	LPWM	O	Outputs PWM for L-ch. (Positive Phase)
70	NLPWM	O	Outputs PWM for L-ch. (Negative Phase)
71	AV_{DD2}	-	Power supply for L-ch PWM driver.
72	AV_{DD3}	-	Power supply for X'tal.
73	XTAI	I	Inputs X'tal oscillation circuit (33.8688MHz).
74	XTAO	I	Outputs X'tal oscillation circuit (33.8688MHz).
75	AV_{SS3}	-	GND.
76	AV_{SS2}	-	GND.
77	NRPWM	O	Outputs PWM for R-ch. (Negative Phase)
78	RPWM	O	Outputs PWM for R-ch. (Positive Phase)
79	DTS2	I	Normal used state: "L".
80	DTS3	I	Normal used state: "L".

IC BLOCK DIAGRAM & DESCRIPTION

IC104 CXD2518Q (DIGITAL SIGNAL PROCESSOR)


XTAI 73
XTAO 74
ZEROL 66
ZEROR 65
EMPHI 63
LRCKI 43
PCMDI 45
BCKI 47
DIGITAL FILTER & 1BIT DAC
70 NLPWM
69 LPWM
78 RPWM
77 NRPWM
BCK 46
PCMD 44
LRCK 42
WDCK 41
61 DOUT
MUTE 6
C2PO 54
RFCK 52
D/A INTERFACE
DIGITAL OUT
DIGITAL CLV
55 XROF
27 LOCK
26 MDS
25 MDP
24 MON
MNT0 58
MNT1 57
MNT3 56
ERROR CORRECTOR
16K RAM
5 SQCK
4 SQSO
3 EXCK
2 SBSO
1 SCOR
22 XLON
19 (19-21) SPOB-D
11 CLOK
10 XLAT
9 DATA
7 SENS
WFCK 64
EMPH 62
GFS 51
XUGF 49
GTOP 48
EFM DEMODULATOR
SUB CORD PROCESSOR
CPU INTERFACE
CLOCK GENERATOR
ASYMMETRY CORRECTOR
DIGITAL PLL
SERVO AUTO SEQUENCER
17 CLKO
16 XLTO
15 DATO
59 FSTT
60 C4M
36 RF
38 ASYI
39 ASYO
40 ASYE
37 BIAS
50 XPCK
29 FILO
30 FILI
31 PCO
34 CLTV
23 FOK
13 SEIN
14 CNIN

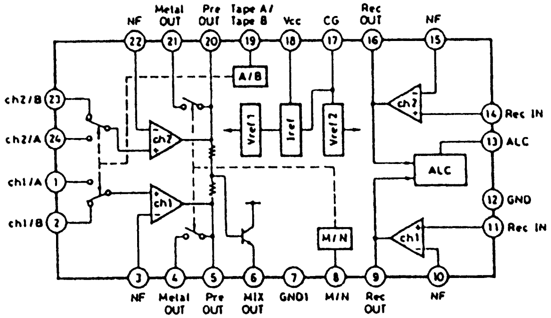
IC BLOCK DIAGRAM & DESCRIPTION

IC251 TMP87CM21F-2066 (MICROPROCESSOR)

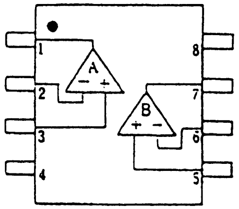
No.	NAME	I/O	DESCRIPTION
1	VSS		GROUND
2	XOUT	O	CLOCK, 4.19MHz
3	XIN	I	CLOCK, 4.19MHz
4	RESET		SYSTEM RESET
5	PLAY-SW	I	CD PLAY SWITCH
6	SENS	I	CD SENS
7	V-CHK		VOLTAGE CHECK, FAILURE
8	TEST		TEST
9	IR	I	REMOTE CONTROL
10	P-CON	O	POWER CONTROL (L = OFF, H = ON)
11	T-MOTOR	O	CD OPEN / CLOSE MOTOR (L = CLOSE, M = STOP, H = OPEN)
12	L-MOTOR	O	CD LOADING MOTOR (L = UNLOAD, M = STOP, H = LOAD)
13	H-MOTOR	O	CD UP / DOWN MOTOR (L = DOWN, M = STOP, H = UP)
14	CD-SCLK	O	IC104 SQCK SIGNAL
15	CD-SIN	I	IC104 SQSO SIGNAL
16	XTAL	O	IC104 XLAT SIGNAL
17	SCOR	I	IC104 SCOR SIGNAL
18	H-PS	I	CD PHOTO SENSOR (UP / DOWN)
19	XRES		CD DSP RESET / POWER CONTROL SIGNAL (H = POWER OFF, DSP = RESET) (M = POWER ON, DSP = RESET) (L = POWER ON, DSP = ON)
20	CD-DATA	O	IC104 DATA SIGNAL
21	CD-CLK	O	IC104 CLOCK SIGNAL
22	TUN-CE	O	TUNER IC245 CE SIGNAL
23	FUNC-A	O	FUNCTION A (L = TUNER, L = TAPE, H = CD, H = LINE)
24	FUNC-B	O	FUNCTION B (L = TUNER, L = CD, L = LINE, H = TAPE)
25	SDATA	O	SIREAL DATA SIGNAL
26	SCLK	O	SIREAL CLOCK SIGNAL
27	VOL-ST	O	VOLUME, IC402 CONTROL SIGNAL
28	SELOUT0	O	TUNER SELECTION
29	SELOUT1	O	FUNCTION SELECTION
30	KEY0	I	KEY INPUT
31	KEY1	I	KEY INPUT
32	SD / ST	I	TUNER SD, STEREO / SELECTION
33	CD-SW0	I	CD LIMIT SWITCH, FOK
34	CD-SW1	I	CD OPEN / CLOSE SWITCH
35	CD-SW2	I	CD LOAD / UNLOAD SWITCH
36	NC		
37	NC		
38	VASS		A GROUND
39	VREF		REFERENCE VOLTAGE
40	VDD		POWER (+)
41	MUTE1	O	AMP. / FUNCTION, MUTE SIGNAL (L = OFF, H = ON)
42	MUTE2	O	AMP. / POWER MUTE SIGNAL (L = OFF, H = ON)
43	TU-MUTE	O	TUNER MUTE SIGNAL (L = OFF, H = ON)
44	TAPE	O	TAPE FUNCTION
45	BEAT	O	TAPE, BEAT CANCEL (L = POSITION 1, H = POSITION 2)
46	DECK-REC	I	TAPE RECORD CONDITION
47	VF-KB	O	VOCAL FADER
48	VF-KC	O	VOCAL FADER (H = V-FADER, L = MPX, H = NORMAL)
49	NC		
50	NC		
51	NC		
52	SEL-SLEEP	I	SLEEP TIMER SELECT
53	SEL-VF	I	VOCAL FADER SELECT
54	SEG18	O	LCD SEGMENT 18
55	SEG17	O	LCD SEGMENT 17
56	SEG16	O	LCD SEGMENT 16
57	SEG15	O	LCD SEGMENT 15
58	SEG14	O	LCD SEGMENT 14
59	SEG12	O	LCD SEGMENT 12
60	SEG11	O	LCD SEGMENT 11
61	SEG10	O	LCD SEGMENT 10
62	SEG9	O	LCD SEGMENT 9
63	SEG13	O	LCD SEGMENT 13
64	SEG8	O	LCD SEGMENT 8
65	SEG7	O	LCD SEGMENT 7
66	SEG6	O	LCD SEGMENT 6
67	SEG5	O	LCD SEGMENT 5
68	SEG4	O	LCD SEGMENT 4
69	SEG3	O	LCD SEGMENT 3
70	SEG2	O	LCD SEGMENT 2
71	SEG1	O	LCD SEGMENT 1
72	SEG0	O	LCD SEGMENT 0
73	COM3	O	LCD COMMON 3
74	COM2	O	LCD COMMON 2
75	COM1	O	LCD COMMON 1
76	COM0	O	LCD COMMON 0
77	VLC	O	LCD DRIVE POWER
78	NC		
79	NC		
80	NC		

IC BLOCK DIAGRAM & DESCRIPTION

IC301 TA8189N (PRE-AMP.)



IC106 NJM4558D or LA6458D (OP. AMP.)



1 . A OUTPUT
2 . A−INPUT
3 . A+INPUT
4 . V⁻
5 . B+INPUT
6 . B−INPUT
7 . B OUTPUT
8 . V⁺

IC & TRANSISTOR VOLTAGES

- **CD SECTION**

IC101 CXA1782BQ (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	2.6	2.5	2.5	2.5	2.5	2.7	2.5	2.9	2.5	2.5	0.8	2.5	2.5	2.5	2.5
STOP	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.9	2.5	2.5	0.8	2.5	2.5	2.5	2.5
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
PLAY	2.5	1.2	5.0	5.0	5.0	4.9	4.8	0	5.0	5.0	0.6	0.7	1.5	2.4	2.5
STOP	2.5	1.2	5.0	5.0	5.0	4.9	4.8	0	5.0	0	2.2	4.3	3.1	1.2	2.5
Pin No.	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
PLAY	3.5	2.5	3.8	0.2	2.5	2.5	2.4	2.3	2.5	2.2	0	2.5	2.5	2.5	2.5
STOP	1.0	3.5	0.8	0	2.2	2.2	2.5	2.5	2.1	3.4	0	2.5	2.5	2.5	2.5
Pin No.	**46**	**47**	**48**												
PLAY	2.5	2.5	2.5												
STOP	2.5	2.5	2.5												

IC102 BA6398FP (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	4.2	4.2	2.5	2.5	8.2	5.0	4.8	0	2.5	2.4	4.6	4.1	0	2.4	2.5
STOP	4.2	0	2.5	2.5	9.3	5.0	4.8	0	2.5	2.5	4.6	4.6	0	9.0	2.5
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**		
PLAY	2.5	4.2	4.4	2.5	2.5	9.2	9.2	2.5	2.5	2.5	4.2	4.2	0		
STOP	2.5	4.6	4.6	2.5	2.5	9.2	9.2	2.5	2.5	0	4.6	4.6	0		

IC & TRANSISTOR VOLTAGES

IC104 CXD2518 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLAY	0	0	5.0	0	4.7	0	5.0	4.8	4.7	4.8	4.8	0	5.0	0	3.3
STOP	0	3.4	5.0	0	4.9	0	0	4.8	4.8	4.8	4.8	0	5.0	0	5.0
Pin No.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
PLAY	5.0	5.0	5.0	5.0	0	0	0.5	5.0	5.0	2.6	0	5.0	0	2.5	2.5
STOP	5.0	5.0	5.0	0	0	0	5.0	0	0	2.5	0	0	0	2.5	2.5
Pin No.	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
PLAY	2.5	5.0	0	2.5	5.0	2.7	0.8	2.5	2.5	5.0	2.5	2.5	2.5	2.5	2.5
STOP	2.5	5.0	0	2.5	5.0	2.7	0.8	2.5	2.5	5.0	2.5	2.5	2.5	2.7	2.7
Pin No.	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
PLAY	2.0	2.4	0	5.0	1.7	5.0	2.5	1.7	0	5.0	4.5	0	0	2.6	1.7
STOP	2.0	2.4	5.0	5.0	1.7	0	2.5	0	5.0	0	4.3	3.6	0	2.6	2.1
Pin No.	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**
PLAY	1.7	0	0	2.5	0	0	0	0	2.5	2.5	5.0	2.5	2.5	2.5	0
STOP	2.1	2.1	2.1	2.5	4.8	4.8	0	5.0	2.5	2.5	5.0	5.0	2.5	2.5	0
Pin No.	**76**	**77**	**78**	**79**	**80**										
PLAY	0	2.5	2.5	0	0										
STOP	0	2.5	2.5	0	0										

IC106 NJM4558D (V)

Pin No.	1	2	3	4	5	6	7	8							
PLAY	Fluc	Fluc	Fluc	0	Fluc	Fluc	Fluc	11.5							
STOP	Fluc	Fluc	Fluc	0	Fluc	Fluc	Fluc	11.5							

IC131 LB1648 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12			
STOP	8.8	4.3	0.4	0	4.3	3.8	8.8	1.9	0	0.4	1.9	6.1			
UP	8.8	4.3	0	0	4.3	3.8	8.8	4.0	0	6.0	0	6.1			
DOWN	8.8	0	6.0	0	4.3	3.8	8.8	0	0	0	4.0	6.1			
LOAD	8.8	4.3	0.4	0	4.3	3.8	8.8	1.9	4.0	0.4	1.9	6.1			
UNLOAD	8.8	4.3	0.4	4.0	0	3.8	8.8	1.9	0	0.4	1.9	6.1			

Fluc : Fluctuation

IC132 LB1641 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10					
STOP	0	0.5	0.7	3.8	4.2	1.5	8.8	8.9	0.7	0.5					
OPEN	0	0.2	0.7	3.8	0	4.0	8.8	8.9	5.2	4.0					
CLOSE	0	4.0	4.9	3.8	4.2	0	8.8	8.9	0.7	0.7					

- **TRANSISTORS**

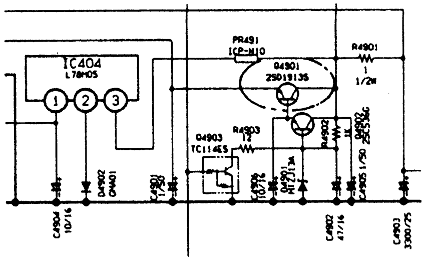
PIN NAME	Q1101			Q1102			Q1201			Q1202			Q1211			Q1321		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PLAY	4.5	1.8	3.7	5.0	5.0	4.2	9.7	5.0	9.1	5.0	1.2	4.7	0	0	4.6	0	0	0.6
STOP	1.4	1.3	0	5.0	1.3	5.0	9.1	5.0	7.8	5.0	4.9	0.7	0	4.4	0	0	0	0.6

PIN NAME	Q1351		
	B	C	E
UP	0	4.2	4.4
DOWN	4.2	0	4.4
STOP	2.8	4.2	4.4

PIN NAME	Q1361		
	B	C	E
LOAD	0	4.2	4.4
UNLOAD	4.2	0	4.4
STOP	2.6	4.2	4.4

PIN NAME	Q1371		
	B	C	E
OPEN	4.0	0	4.4
CLOSE	0	4.2	4.4
STOP	2.3	4.0	4.4

NOTES : TRANSISTOR (Q4901) P.W.BOARD (only XE)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2
3
PR491
ICP-N10
Q4901
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1
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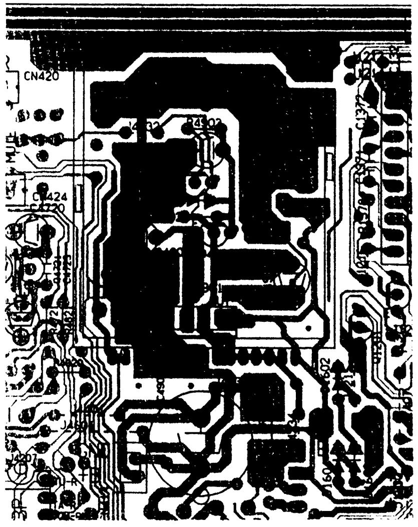
TC114ES
R4903
12
R4902
1K
Q4902
2SC536G
D4902
GMA01
D4901
MTZJ13A
C4904
10/16
C4901
1/50
C4906
10/16
C4902
47/16
C4905
1/50
C4903
3300/25

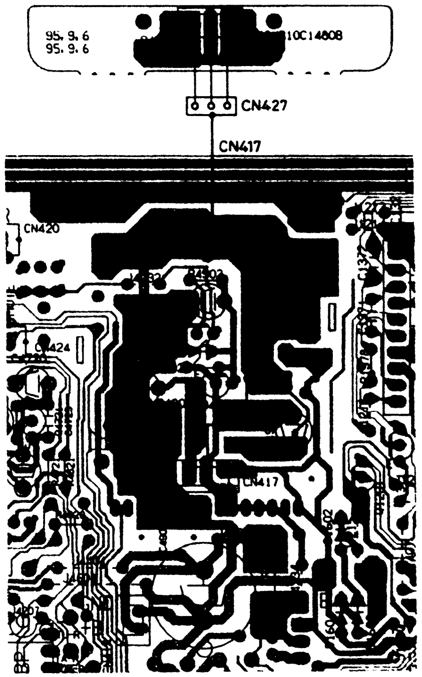
TYPE 1

TUNER, AMP. & CD P.W.B



TYPE 2

TRANSISTOR (Q4901) P.W.B


95. 9. 6
95. 9. 6
10C14808
CN427
CN417
CN420
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C424

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Osaka, Japan

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